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1989 Motor Freight Transportation and Warehousing Survey

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Acknowledgments

This report was prepared in the Business Division under the general direction of **James M. Aanestad,** Assistant Division Chief for the Current Service and Transportation Programs. Planning, implementation, and compiling of this report were under the supervision of **Thomas E. Zabelsky,** Chief, Current Services Branch, assisted by **Ruth Bramblett, Marybeth Morris, Tonya Giampietro, David Lassman, Susan Davis,** and **Carolyn Polczynski.**

The processing system and computer programs were developed under the general direction of **Roger O. Lepage,** Assistant Division Chief for Systems. Implementation of these programs was under the direction of **Barry Sessamen,** Chief, Special Surveys Programming Branch, assisted by **Tonya Gallagher, Bill McClain,** and **Laurie Leifermann.**

Sample design and statistical methodology were developed under the general direction of **Brian V. Greenberg,** Assistant Division Chief, Research and Methodology. Sample design, including estimation and variance methodology, were under the supervision of **Ruth E. Detlefsen,** Chief, Program Research and Development Branch, assisted by **Carol Veum, Valerie Pleich,** and **Michael Shimberg.** Sample control, imputation, and quality control procedures were developed under the supervision of **Carl A. Konschnik,** Chief, Statistical Methods Branch, assisted by **Carol King.**

Coordination of data collection efforts was under the direction of **Joseph S. Harris,** Chief, Data Preparation Division, assisted by **Judi Petty, Matt Aulbach, Coleta Hatfield, Betty Brandt,** and **JoAnn Milliner.**

The staff of the Administrative and Publications Services Division, under the direction of **Walter C. Odom,** Chief, performed publication planning, design, composition, editorial review, printing planning, and procurement. **Gail Farren** provided publication coordination and editing.

Special acknowledgment also is due to the many businesses whose cooperation was essential to the publication of this report.

Inquiries concerning this report should be addressed to **Thomas E. Zabelsky,** Business Division, Bureau of the Census, Washington, D.C. 20233, telephone 301 763-5528 or 763-3990.

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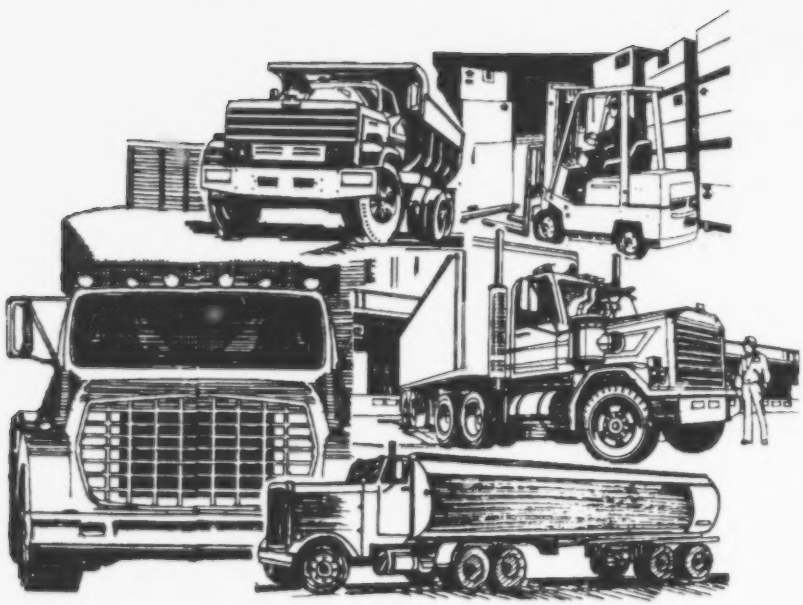

Issued December 1990

U.S. Department of Commerce
Robert A. Mosbacher, Secretary
Thomas J. Murrin, Deputy Secretary
Michael R. Darby, Under Secretary
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C.L. Kincannon, Deputy Director
Charles A. Waite, Associate Director for
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Howard N. Hamilton, Division Chief

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INTRODUCTION

COVERAGE

This report presents results from the 1989 Motor Freight Transportation and Warehousing Survey. This annual survey covers all employer firms with one or more establishments that are primarily engaged in providing commercial motor freight transportation and warehousing services. This includes firms furnishing local or long distance trucking or transfer services, and those engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature.

This survey excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies, as well as independent owner-operators with no paid employees. As a result, the dollar volume estimates and estimates of year-to-year percentage change presented in this report should not be interpreted as representing measurements of total trucking industry activity.

Appendix A gives a more detailed explanation of the survey coverage, and sampling and estimation methodology. Appendix B provides a description of each kind of business included in this report. Extracts of the 1989 report forms are provided in Appendix C.

BENCHMARKING

The 1984 through 1989 revenue and expense estimates shown in this publication reflect a benchmarking operation that adjusted previously published estimates to 1987 census levels (based on the 1972 Standard Industrial Classification (SIC) definitions). Benchmarking accounts for differences between census and annual survey reporting and processing.

Ratios of total revenue tabulated in the 1987 Census of Transportation to total revenue estimated from the 1987 Motor Freight Transportation and Warehousing Survey were computed for each detail SIC level within SIC 42. These ratios were then applied to the annual revenue estimates for 1984 through 1989 to obtain adjusted estimates.

Estimates of annual payroll and employer contributions to Social Security and other supplemental labor benefits were adjusted for the years 1984 through 1989 for detail SIC levels by applying ratios of annual payroll tabulated in the 1987 Census of Transportation to annual payroll estimated from the 1987 annual survey. Other operating expense items were revised by applying ratios of adjusted-to-unadjusted total operating expenses less annual payroll and employer contributions, from the 1987 Motor Freight Transportation and Warehousing Survey in which the adjusted total operating expenses were obtained by applying 1987 census-to-annual ratios of total revenue.

Adjusted estimates of operating revenue and operating expenses for SICs 422 and SIC 42 were obtained by summing adjusted estimates for their component detail SICs. For SIC 421, estimated inventories of revenue generating freight equipment were not adjusted.

UNPUBLISHED DATA

Estimates for some kinds of business not separately shown in this report are produced as a by-product of the published statistics. These additional data have not been published because of their high sampling variability, poor response quality, or other factors that resulted in their failure to meet Census Bureau standards for publication. The Bureau of the Census, upon written request, will release such figures for individual use. It should be noted that some unpublished figures can be derived from this report by subtracting published data from their respective totals. However, such figures would be subject to the high sampling variability described previously. These unpublished estimates are for internal use only.

SUMMARY OF DATA

Total 1989 operating revenue for trucking services (SIC 421) was estimated at $112.3 billion, up 5.2 percent (± 3.7 percent) from 1988. Intercity trucking, which accounted for approximately 79 percent of motor carrier revenue in 1989, rose 6.3 percent (± 3.1 percent). Approximately 47 percent of 1989 motor carrier revenue was derived from transporting "other manufactured products" that included furniture, hardware, glass products, and textiles and apparel; and "all other commodities" that included mixed cargo and the delivery of small packages. The 1989 motor carrier revenue from the transport of forestry, wood, and paper products, and chemicals and allied products rose 11.4 and 7.8 percent respectively from 1988. Truckload shipments (shipments weighing 10,000 pounds or more) accounted for approximately 65 percent of motor carrier revenue for 1989.

Total operating expenses in 1989 were estimated at $107.4 billion, up 5.4 percent (± 3.5 percent) from the previous year. Annual payroll rose 6.5 percent (± 1.8 percent) to an estimated $34.2 billion. The cost of insurance in 1989 rose 5.4 percent (± 4.1 percent) from the previous year, while the cost of purchased fuels gained 17.8 percent (± 5.0 percent). Purchased transportation accounted for approximately 21 percent of total expenses in 1989.

Total 1989 operating revenue for general freight carriers was estimated at $72.7 billion, an increase of 5.5 percent (± 3.7 percent) from the previous year. General freight carriers accounted for about 65 percent of total operating revenue for all carriers, and approximately 73 percent of total motor carrier revenue from intercity services. Total operating expenses in 1989 were estimated at $69.6 billion, up 4.9 percent (± 3.5 percent) from 1988.

Total 1989 operating revenue for specialty freight carriers was estimated at $39.5 billion. Total 1989 operating expenses were approximately $37.8 billion.

Table 1. **Motor Freight Transportation and Warehousing Services (SIC 42)—Summary Statistics, by Kind of Business: 1984 Through 1989**

(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	Motor freight transportation and warehousing services[1] (SIC 42)	Trucking, local and long distance[2] (SIC 421)	Public warehousing (SIC 422)	Farm product warehousing and storage (SIC 4221)	Refrigerated warehousing (SIC 4222)	Household goods warehousing and storage (SIC 4224)	General and special warehousing and storage n.e.c. (SIC 4225,4226)
Total operating revenue							
Millions of dollars							
1989	118,697	112,263	6,369	649	1,194	247	4,279
1988	112,730	106,752	5,930	605	1,185	222	3,918
1987	103,043	97,722	5,255	586	1,171	215	3,283
1986	96,667	91,509	5,115	(S)	1,080	205	3,335
1985	91,663	86,858	4,754	493	958	200	3,103
1984	88,672	84,219	4,427	508	897	195	2,827
Percent change							
1989/1988	5.3	5.2	7.4	7.3	0.8	11.3	9.2
1988/1987	9.4	9.2	12.8	3.2	1.2	3.3	19.3
1987/1986	6.6	6.8	2.7	(S)	8.4	4.9	-1.6
1986/1985	5.5	5.4	7.6	(S)	12.7	2.5	7.5
1985/1984	3.4	3.1	7.4	-3.0	6.8	2.6	9.8
Total operating expenses							
Millions of dollars							
1989	113,153	107,432	5,662	525	1,035	203	3,899
1988	107,179	101,896	5,242	518	1,018	181	3,525
1987	97,709	93,125	4,524	483	967	169	2,905
1986	90,257	85,781	4,442	(S)	951	159	2,913
1985	87,448	83,266	4,136	431	832	168	2,705
1984	83,274	79,444	3,808	416	755	(S)	2,466
Percent change							
1989/1988	5.6	5.4	8.0	1.4	1.7	12.2	10.6
1988/1987	9.7	9.4	15.9	7.3	5.3	7.1	21.3
1987/1986	8.3	8.6	1.9	(S)	1.7	6.3	-0.3
1986/1985	3.2	3.0	7.4	(S)	14.3	-5.4	7.7
1985/1984	5.0	4.8	8.6	3.6	10.2	(S)	9.7
Total annual payroll							
Millions of dollars							
1989	35,885	34,161	1,697	(S)	350	82	1,123
1988	33,732	32,085	1,626	(S)	353	75	1,061
1987	30,997	29,522	1,448	(S)	334	66	917
1986	28,961	27,483	1,462	(S)	340	61	940
1985	28,091	26,722	1,349	(S)	305	60	863
1984	27,674	26,407	1,255	(S)	280	63	793
Percent change							
1989/1988	6.4	6.5	4.4	(S)	-0.9	9.3	5.8
1988/1987	8.8	8.7	12.3	(S)	5.7	13.6	15.7
1987/1986	7.0	7.4	-1.0	(S)	-1.8	8.2	-2.5
1986/1985	3.1	2.9	8.4	(S)	11.5	1.7	8.9
1985/1984	1.5	1.2	7.5	(S)	8.9	-4.8	8.8

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

[1]Includes terminal and joint terminal maintenance facilities for motor freight transportation (SIC 4231) not shown separately.

[2]Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees.

Note: Estimates are not adjusted for price changes. Tables 8 and 12 provide estimated measures of sampling variability (coefficients of variation) for SIC 421 and SIC 422 respectively. Coefficients of variation have not been computed for benchmarked estimates prior to 1988, but approximate those previously published for unrevised estimates. Estimated coefficents of variation for revenue, expenses, and payroll estimates, and year-to-year ratios for SIC 42 and SIC 4221 are:

Estimated Coefficients of Variation for SIC 42 and SIC 4221: 1988 and 1989

SIC	Total operating revenue		Year-to-year ratio	Total operating expenses		Year-to-year ratio	Annual payroll		Year-to-year ratio
	1989	1,988	1989/1988	1989	1,988	1989/1988	1989	1,988	1989/1988
42	2.7	1.6	2.0	2.7	1.7	1.9	1.7	1.4	1.0
4221	12.2	9.0	4.3	9.3	7.5	3.6	(S)	(S)	(S)

Table 2. **Motor Freight Transportation and Warehousing Services (SIC 42)—Estimated Corporate Revenue, by Kind of Business: 1989**

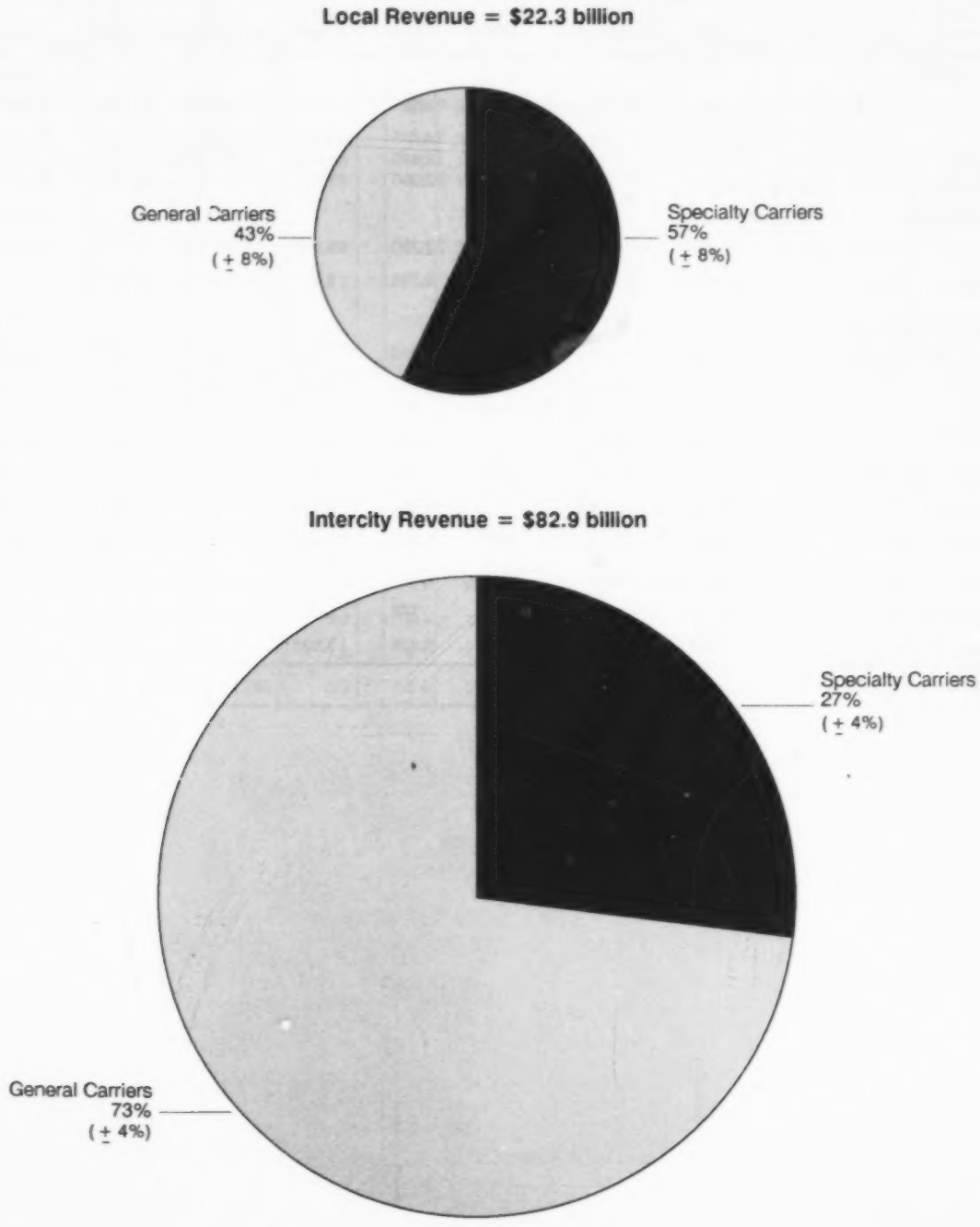
(Estimates reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

SIC code	Kind of business	Total operating revenue (Millions of dollars)	Percent of total operating revenue from corporations	Coefficients of variation	
				Dollar volume	Percent estimates
42	Motor freight transportation and warehousing services[1]	118,697	93.2	2.7	0.9
421	Trucking, local and long distance[2]	112,263	93.5	2.7	1.0
422	Public warehousing	6,369	87.5	3.8	1.6
4221	Farm product warehousing and storage	649	84.6	12.2	5.9
4222	Refrigerated warehousing	1,194	86.9	4.8	5.4
4224	Household goods warehousing and storage	247	71.3	6.1	10.3
4225,6	General warehousing and storage and special warehousing and storage, not elsewhere classified	4,279	89.5	4.2	1.6

[1]Includes terminal and joint terminal maintenance facilities for motor freight transportation (SIC 4231) not shown separately.

[2]Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees.

Figure 1.
Trucking Services (SIC 421): Estimated Percentages of 1989 Motor Carrier Revenue from Local and Intercity Hauling, by Type of Carrier



Note: Percentages are accompanied by a 90-percent confidence interval. See Appendix A under Reliability of Data for further information on confidence intervals.

Table 3. **Trucking Services (SIC 421)—Estimated Revenue and Expenses, by Type of Carrier: 1984 Through 1989**

(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	All carriers			Specialty freight carriers			General freight carriers		
	Millions of dollars		Percent change	Millions of dollars		Percent change	Millions of dollars		Percent change
	1989	1988	1989/1988	1989	1988	1989/1988	1989	1988	1989/1988
Operating revenue									
Total	112,263	106,752	5.2	39,524	37,831	4.5	72,739	68,921	5.5
Motor carrier	105,158	99,592	5.6	34,705	33,146	4.7	70,453	66,446	6.0
Local trucking	22,287	21,633	3.0	12,610	11,758	7.3	9,677	9,875	-2.0
Intercity trucking	82,871	77,959	6.3	22,095	21,388	3.3	60,776	56,571	7.4
Operating expenses									
Total	107,432	101,896	5.4	37,790	35,502	6.4	69,642	66,394	4.9
Annual payroll	34,161	32,085	6.5	9,788	9,079	7.8	24,373	23,006	5.9
Employer contributions to Social Security and other supplemental labor benefits	8,282	7,488	10.6	2,015	1,778	13.3	6,267	5,710	9.8
Purchased fuels	7,737	6,568	17.8	2,443	2,169	12.6	5,294	4,399	20.4
Cost of purchased transportation	23,050	23,297	-1.1	9,438	9,641	-2.1	13,612	13,656	-0.3
Lease and rental payments	2,063	2,003	3.0	876	845	3.7	1,187	1,158	2.5
Cost of insurance	4,426	4,198	5.4	1,624	1,537	5.7	2,802	2,661	5.3
Maintenance and repair costs	6,054	5,531	9.5	2,319	2,099	10.5	3,735	3,432	8.8
Depreciation	5,820	5,334	9.1	2,183	2,005	8.9	3,637	3,329	9.3
Taxes and licenses	2,370	2,142	10.6	778	711	9.4	1,592	1,431	11.3
Other operating expenses	13,469	13,250	1.7	6,326	5,638	12.2	7,143	7,612	-6.2

See footnotes at end of table.

Table 3. **Trucking Services (SIC 421)—Estimated Revenue and Expenses, by Type of Carrier: 1984 Through 1989**—Continued

(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	All carriers				Specialty freight carriers				General freight carriers			
	Millions of dollars		Percent change		Millions of dollars		Percent change		Millions of dollars		Percent change	
	1987	1986	1988/1987	1987/1986	1987	1986	1988/1987	1987/1986	1987	1986	1988/1987	1987/1986
Operating revenue												
Total	97,722	91,509	9.2	6.8	35,078	33,054	7.9	6.1	62,644	58,455	10.0	7.2
Motor carrier	91,706	85,259	8.6	7.6	30,964	28,722	7.1	7.8	60,742	56,537	9.4	7.4
Local trucking	19,654	16,517	10.1	19.0	11,467	9,986	2.5	14.8	8,187	6,531	20.6	25.4
Intercity trucking	72,052	68,742	8.2	4.8	19,497	18,736	9.7	4.1	52,555	50,006	7.6	5.1
Operating expenses												
Total	93,125	85,781	9.4	8.6	33,268	31,324	6.7	6.2	59,857	54,457	10.9	9.9
Annual payroll	29,522	27,483	8.7	7.4	8,451	7,910	7.4	6.8	21,071	19,573	9.2	7.7
Employer contributions to Social Security and other supplemental labor benefits	6,770	6,206	10.6	9.1	1,653	1,524	7.6	8.5	5,117	4,682	11.6	9.3
Purchased fuels	6,040	5,581	8.7	8.2	2,016	1,786	7.6	12.9	4,024	3,795	9.3	6.0
Cost of purchased transportation	21,179	20,322	10.0	4.2	8,991	9,274	7.2	-3.1	12,188	11,048	12.0	10.3
Lease and rental payments	1,787	1,618	12.1	10.4	781	685	8.2	14.0	1,006	933	15.1	7.8
Cost of insurance	3,741	3,250	12.2	15.1	1,548	1,301	-0.7	19.0	2,193	1,949	21.3	12.5
Maintenance and repair costs	5,031	4,655	9.9	8.1	2,021	1,887	3.9	7.1	3,010	2,768	14.0	8.7
Depreciation	4,879	4,423	9.3	10.3	1,938	1,675	3.5	15.7	2,941	2,748	13.2	7.0
Taxes and licenses	1,988	1,947	7.8	2.1	744	635	-4.4	17.2	1,244	1,312	15.0	-5.2
Other operating expenses	12,188	10,296	8.7	18.4	5,125	4,647	10.0	10.3	7,063	5,649	7.8	25.0

See footnotes at end of table.

Table 3. **Trucking Services (SIC 421)—Estimated Revenue and Expenses, by Type of Carrier: 1984 Through 1989**—Continued

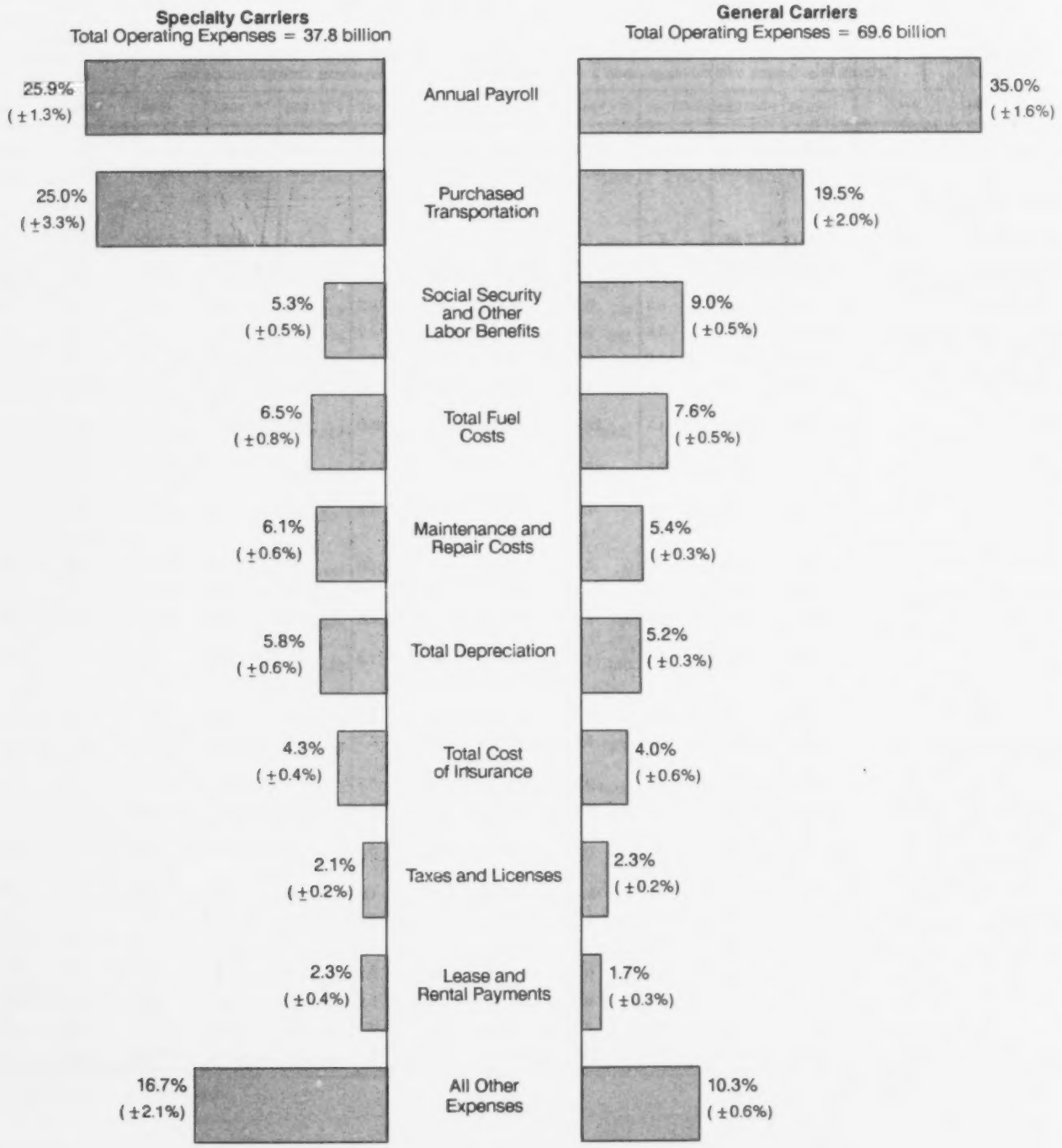
(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	All carriers				Specialty freight carriers				General freight carriers			
	Millions of dollars		Percent change		Millions of dollars		Percent change		Millions of dollars		Percent change	
	1985	1984	1986/1985	1985/1984	1985	1984	1986/1985	1985/1984	1985	1984	1986/1985	1985/1984
Operating revenue												
Total	86,858	84,219	5.4	3.1	30,435	26,489	8.6	14.9	56,423	57,730	3.6	-2.3
Motor carrier	81,347	78,180	4.8	4.1	26,974	23,140	6.5	16.6	54,373	55,040	4.0	-1.2
Local trucking	17,548	16,725	-5.9	4.9	9,084	7,943	9.9	14.4	8,464	8,782	-22.8	-3.6
Intercity trucking	63,799	61,455	7.8	3.8	17,890	15,197	4.7	17.7	45,909	46,258	8.9	-0.8
Operating expenses												
Total	83,266	79,444	3.0	4.8	28,933	24,699	8.3	17.1	54,333	54,745	0.2	-0.8
Annual payroll	26,722	26,407	2.9	1.2	7,600	6,719	4.1	13.1	19,122	19,688	2.4	-2.9
Employer contributions to Social Security and other supplemental labor benefits	6,113	6,037	1.5	1.3	1,428	1,238	6.7	15.4	4,685	4,799	-0.1	-2.4
Purchased fuels	6,825	6,730	-18.2	1.4	2,191	1,924	-18.5	13.9	4,634	4,806	-18.1	-3.6
Cost of purchased transportation	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Lease and rental payments	1,314	1,234	23.1	6.5	504	484	35.9	4.1	810	750	15.2	8.0
Cost of insurance	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Maintenance and repair costs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Depreciation	4,193	4,024	5.5	4.2	1,596	1,364	5.0	17.0	2,597	2,660	5.8	-2.4
Taxes and licenses	1,950	1,794	-0.2	8.7	619	526	2.6	17.7	1,331	1,268	-1.4	5.0
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

Note: Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 8 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Figure 2.
Trucking Services (SIC 421): Estimated Percentages of 1989 Operating Expenses, by Type of Carrier



Note: Percentages are accompanied by a 90-percent confidence interval. See Appendix A under Reliability of Data for further information on confidence intervals.

Table 4. Trucking Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1984 Through 1989

(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Operating expenses	All carriers				Specialty freight carriers				General freight carriers			
	Millions of dollars		Percent of total operating expenses		Millions of dollars		Percent of total operating expenses		Millions of dollars		Percent of total operating expenses	
	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988
Total	107,432	101,896	100.0	100.0	37,790	35,502	100.0	100.0	69,642	66,394	100.0	100.0
Annual payroll	34,161	32,085	31.8	31.5	9,788	9,079	25.9	25.6	24,373	23,006	35.0	34.7
Employer contributions to Social Security and other supplemental labor benefits	8,282	7,488	7.7	7.3	2,015	1,778	5.3	5.0	6,267	5,710	9.0	8.6
Purchased fuels	7,737	6,568	7.2	6.4	2,443	2,169	6.5	6.1	5,294	4,399	7.6	6.6
Trucks and motor vehicles	7,385	6,221	6.9	6.1	2,321	2,048	6.1	5.8	5,064	4,173	7.3	6.3
Heat, power, or generating electricity	352	347	0.3	0.3	122	121	0.3	0.3	230	226	0.3	0.3
Lease and rental payments	2,063	2,003	1.9	2.0	876	845	2.3	2.4	1,187	1,158	1.7	1.7
Buildings, structures, and offices	1,732	1,673	1.6	1.6	748	714	2.0	2.0	984	(S)	1.4	(S)
Machinery and equipment (except motor vehicles)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Cost of purchased transportation	23,050	23,297	21.5	22.9	9,438	9,641	25.0	27.2	13,612	13,656	19.5	20.6
Trucks and other motor vehicles rented or leased with drivers	17,688	18,271	16.5	17.9	8,440	8,683	22.3	24.5	9,248	9,588	13.3	14.4
Trucks and other motor vehicles rented or leased without drivers	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Other purchased transportation including railroads, airlines, water, and other motor carriers	2,322	2,273	2.2	2.2	(S)	(S)	(S)	(S)	2,107	2,095	3.0	3.2
Cost of insurance	4,426	4,198	4.1	4.1	1,624	1,537	4.3	4.3	2,802	2,661	4.0	4.0
Public liability and property damage insurance	2,844	2,604	2.6	2.6	1,051	975	2.8	2.7	1,793	1,629	2.6	2.5
Insurance for loss or damage to motor vehicles and their cargos	1,326	1,356	1.2	1.3	460	447	1.2	1.3	866	909	1.2	1.4
Insurance for buildings, structures, offices, and machinery and equipment (except motor vehicles)	256	238	0.2	0.2	113	115	0.3	0.3	143	123	0.2	0.2
Maintenance and repair costs	6,054	5,531	5.6	5.4	2,319	2,099	6.1	5.9	3,735	3,432	5.4	5.2
Motor vehicle parts for self-repair, including tires and tubes	3,656	3,301	3.4	3.2	1,399	1,249	3.7	3.5	2,257	2,052	3.2	3.1
Purchased repairs to trucks and other motor vehicles	1,902	1,794	1.8	1.8	726	690	1.9	1.9	1,176	1,104	1.7	1.7
Purchased repairs to buildings, structures, and offices	244	205	0.2	0.2	74	63	0.2	0.2	170	142	0.2	0.2
Purchased repairs to machinery and equipment (except motor vehicles)	252	231	0.2	0.2	(S)	(S)	(S)	(S)	132	(S)	0.2	(S)
Depreciation	5,820	5,334	5.4	5.2	2,183	2,005	5.8	5.6	3,637	3,329	5.2	5.0
Trucks and other motor vehicles	4,812	4,365	4.5	4.3	1,869	1,661	4.9	4.7	2,943	2,704	4.2	4.1
Buildings, structures, and offices	404	362	0.4	0.4	113	(S)	0.3	(S)	291	267	0.4	0.4
Machinery and equipment (except motor vehicles)	604	607	0.6	0.6	201	(S)	0.5	(S)	403	358	0.6	0.5
Taxes and licenses	2,370	2,142	2.2	2.1	778	711	2.1	2.0	1,592	1,431	2.3	2.2
Other operating expenses	13,469	13,250	12.5	13.0	6,326	5,638	16.7	15.9	7,143	7,612	10.3	11.5

See footnotes at end of table.

Table 4. **Trucking Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1984 Through 1989**—Continued

(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Operating expenses	All carriers				Specialty freight carriers				General freight carriers			
	Millions of dollars		Percent of total operating expenses		Millions of dollars		Percent of total operating expenses		Millions of dollars		Percent of total operating expenses	
	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986
Total	93,125	85,781	100.0	100.0	33,268	31,324	100.0	100.0	59,857	54,457	100.0	100.0
Annual payroll	29,522	27,483	31.7	32.0	8,451	7,910	25.4	25.3	21,071	19,573	35.2	35.9
Employer contributions to Social Security and other supplemental labor benefits	6,770	6,206	7.3	7.2	1,653	1,524	5.0	4.9	5,117	4,682	8.5	8.6
Purchased fuels	6,040	5,581	6.5	6.5	2,016	1,786	6.1	5.7	4,024	3,795	6.7	7.0
Trucks and motor vehicles	5,722	5,252	6.1	6.1	1,905	1,707	5.7	5.4	3,817	3,545	6.4	6.5
Heat, power, or generating electricity	318	329	0.3	0.4	(S)	79	(S)	0.3	207	250	0.3	0.5
Lease and rental payments	1,787	1,618	1.9	1.9	781	685	2.3	2.2	1,006	933	1.7	1.7
Buildings, structures, and offices	1,422	1,204	1.5	1.4	692	584	2.1	1.9	730	620	1.2	1.1
Machinery and equipment (except motor vehicles)	(S)	414	(S)	0.5	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Cost of purchased transportation	21,179	20,322	22.7	23.7	8,991	9,274	27.0	29.6	12,188	11,048	20.4	20.3
Trucks and other motor vehicles rented or leased with drivers	(S)	16,136	(S)	18.8	(S)	8,527	(S)	27.2	(S)	7,609	(S)	14.0
Trucks and other motor vehicles rented or leased without drivers	(S)	2,000	(S)	2.3	(S)	(S)	(S)	(S)	(S)	1,457	(S)	2.7
Other purchased transportation including railroads, airlines, water, and other motor carriers	2,156	2,186	2.3	2.5	(S)	(S)	(S)	(S)	1,971	1,982	3.3	3.6
Cost of insurance	3,741	3,250	4.0	3.8	1,548	1,301	4.7	4.2	2,193	1,949	3.7	3.6
Public liability and property damage insurance	2,398	1,962	2.6	2.3	1,025	797	3.1	2.5	1,373	1,165	2.3	2.1
Insurance for loss or damage to motor vehicles and their cargos	1,130	1,073	1.2	1.3	418	401	1.3	1.3	712	672	1.2	1.2
Insurance for buildings, structures, offices, and machinery and equipment (except motor vehicles)	213	215	0.2	0.3	105	103	0.3	0.3	108	112	0.2	0.2
Maintenance and repair costs	5,031	4,655	5.4	5.4	2,021	1,887	6.1	6.0	3,010	2,768	5.0	5.1
Motor vehicle parts for self-repair, including tires and tubes	3,053	2,710	3.3	3.2	1,219	1,065	3.7	3.4	1,834	1,645	3.1	3.0
Purchased repairs to trucks and other motor vehicles	1,606	1,553	1.7	1.8	653	618	2.0	2.0	953	935	1.6	1.7
Purchased repairs to buildings, structures, and offices	192	178	0.2	0.2	64	(S)	0.2	(S)	128	106	0.2	0.2
Purchased repairs to machinery and equipment (except motor vehicles)	180	(S)	0.2	(S)	(S)	(S)	(S)	(S)	95	82	0.2	0.2
Depreciation	4,879	4,423	5.2	5.2	1,938	1,675	5.8	5.3	2,941	2,748	4.9	5.0
Trucks and other motor vehicles	3,933	3,606	4.2	4.2	1,558	1,367	4.7	4.4	2,375	2,239	4.0	4.1
Buildings, structures, and offices	338	320	0.4	0.4	78	78	0.2	0.2	260	242	0.4	0.4
Machinery and equipment (except motor vehicles)	608	497	0.7	0.6	(S)	230	(S)	0.7	306	267	0.5	0.5
Taxes and licenses	1,988	1,947	2.1	2.3	744	635	2.2	2.0	1,244	1,312	2.1	2.4
Other operating expenses	12,188	10,296	13.1	12.0	5,125	4,647	15.4	14.8	7,063	5,649	11.8	10.4

See footnotes at end of table.

Table 4. **Trucking Services (SIC 421)—Components of Operating Expense Estimates, by Type of Carrier: 1984 Through 1989**—Continued

(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

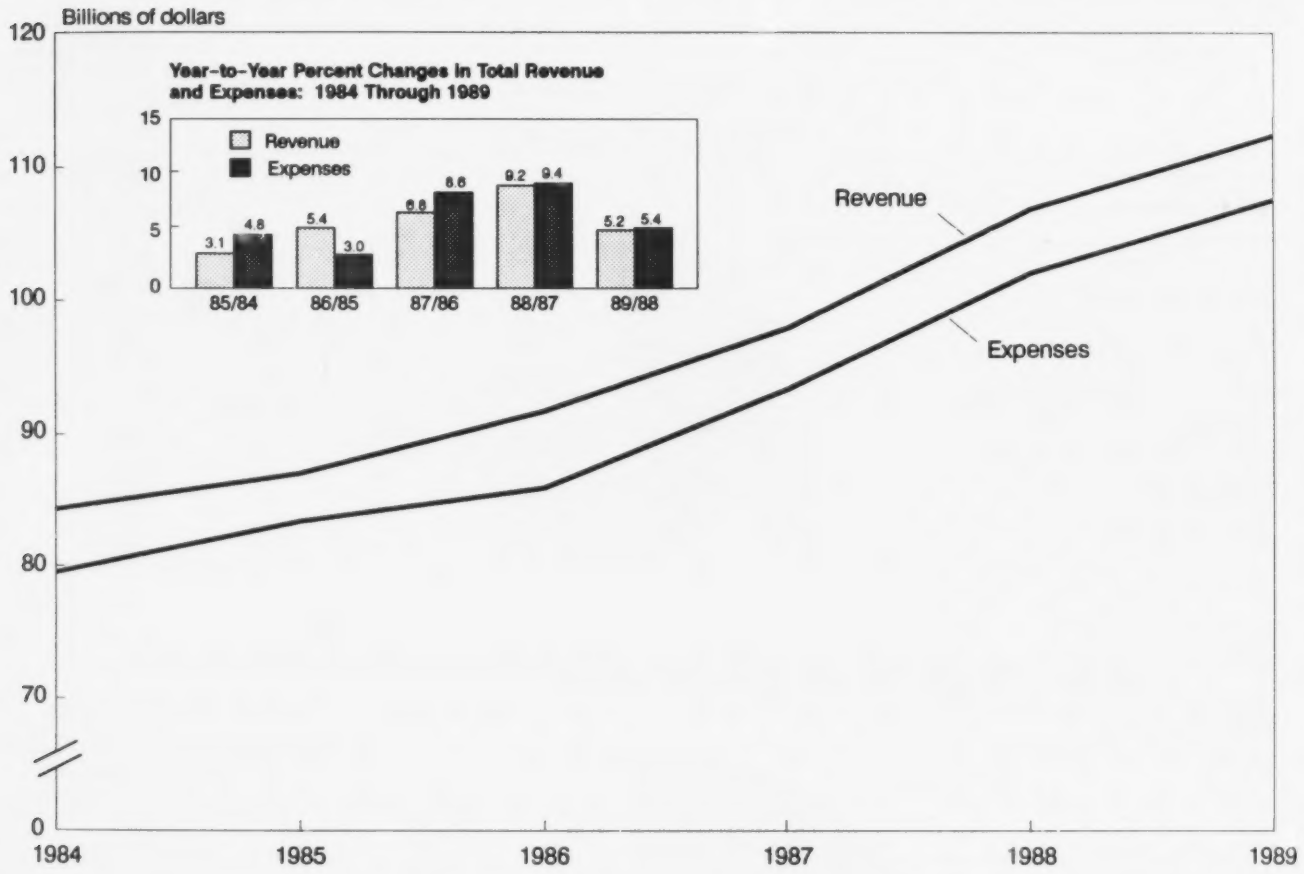
Operating expenses	All carriers				Specialty freight carriers				General freight carriers			
	Millions ofdollars		Percent of total operating expenses		Millions of dollars		Percent of total operating expenses		Millions of dollars		Percent of total operating expenses	
	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984
Total	83,266	79,444	100.0	100.0	28,933	24,699	100.0	100.0	54,333	54,745	100.0	100.0
Annual payroll	26,722	26,407	32.1	33.2	7,600	6,719	26.3	27.2	19,122	19,688	35.2	36.0
Employer contributions to Social Security and other supplemental labor benefits	6,113	6,037	7.3	7.6	1,428	1,238	4.9	5.0	4,685	4,799	8.6	8.8
Purchased fuels	6,825	6,730	8.2	8.5	2,191	1,924	7.6	7.8	4,634	4,806	8.5	8.8
Trucks and motor vehicles	6,517	6,437	7.8	8.1	2,110	1,863	7.3	7.5	4,407	4,574	8.1	8.4
Heat, power, or generating electricity	308	293	0.4	0.4	81	61	0.3	0.2	227	232	0.4	0.4
Lease and rental payments	1,314	1,234	1.6	1.6	504	484	1.7	2.0	810	750	1.5	1.4
Buildings, structures, and offices	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Machinery and equipment (except motor vehicles)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Cost of purchased transportation	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Trucks and other motor vehicles rented or leased with drivers	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Trucks and other motor vehicles rented or leased without drivers	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other purchased transportation including railroads, airlines, water, and other motor carriers	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Cost of insurance	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Public liability and property damage insurance	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Insurance for loss or damage to motor vehicles and their cargos	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Insurance for buildings, structures, offices, and machinery and equipment (except motor vehicles)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Maintenance and repair costs	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Motor vehicle parts for self-repair, including tires and tubes	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased repairs to trucks and other motor vehicles	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased repairs to buildings, structures, and offices	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased repairs to machinery and equipment (except motor vehicles)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Depreciation	4,193	4,024	5.0	5.1	1,596	1,364	5.5	5.5	2,597	2,660	4.8	4.9
Trucks and other motor vehicles	3,415	3,275	4.1	4.1	1,336	1,135	4.6	4.6	2,079	2,140	3.8	3.9
Buildings, structures, and offices	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Machinery and equipment (except motor vehicles)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Taxes and licenses	1,950	1,794	2.3	2.3	619	526	2.1	2.1	1,331	1,268	2.4	2.3
Other operating expenses	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

Note: Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 9 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Figure 3.
Trucking Services (SIC 421): Estimated Total Revenue, Total Expenses, and Year-to-Year Percent Changes for 1984 Through 1989



Note: See table 8 for estimated measures of sampling variability (coefficients of variation) for years 1988 and 1989. Coefficients of variation have not been computed for benchmarked estimates prior to 1988, but approximate those previously published for unrevised estimates.

Table 5. **Trucking Services (SIC 421)—Estimated Motor Carrier Revenue, by Size of Shipments and Commodities Handled: 1986 Through 1989**
(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	Millions of dollars		Percent change 1989/1988	Percent of total motor carrier revenue		Coefficients of variation for percent of total motor carrier revenue	
	1989	1988		1989	1988	1989	1988
Motor carrier revenue	105,158	99,592	5.6	100.0	100.0	(X)	(X)
Size of shipments							
Truckload	68,353	65,056	5.1	65.0	65.3	2.8	2.8
Less-than-truckload	36,805	34,536	6.6	35.0	34.7	5.2	5.2
Commodities handled							
Agricultural and food products	13,997	13,126	6.6	13.3	13.2	10.0	8.5
Mining products, unrefined	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Building materials	5,822	5,344	8.9	5.5	5.4	16.0	13.3
Forestry, wood, and paper products	7,873	7,067	11.4	7.5	7.1	13.7	11.8
Chemicals and allied products (except petroleum)	5,991	5,556	7.8	5.7	5.6	12.5	12.8
Petroleum and petroleum products	2,804	2,836	-1.1	2.7	2.8	13.4	15.0
Metals and metal products	9,358	8,283	13.0	8.9	8.3	11.1	8.5
Household goods	8,591	8,145	5.5	8.2	8.2	9.9	9.8
Other manufactured products	15,829	15,361	3.1	15.1	15.4	8.2	6.5
All other goods	33,189	32,147	3.2	31.6	32.3	6.9	6.3

Table 5. **Trucking Services (SIC 421)—Estimated Motor Carrier Revenue, by Size of Shipments and Commodities Handled: 1986 Through 1989**—Continued
(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	Millions of dollars		Percent change		Percent of total motor carrier revenue	
	1987	1986	1988/1987	1987/1986	1987	1986
Motor carrier revenues	91,706	85,259	8.6	7.6	100.0	100.0
Size of shipments						
Truckload	59,489	55,462	9.4	7.3	64.9	65.1
Less-than-truckload	32,217	29,797	7.2	8.1	35.1	34.9
Commodities handled						
Agricultural and food products	12,736	10,531	3.1	20.9	13.9	12.4
Mining products, unrefined	(S)	(S)	(S)	(S)	(S)	(S)
Building materials	4,510	5,130	18.5	-12.1	4.9	6.0
Forestry, wood, and paper products	5,621	4,697	25.7	19.7	6.1	5.5
Chemicals and allied products (except petroleum)	4,506	4,252	23.3	6.0	4.9	5.0
Petroleum and petroleum products	2,396	2,408	18.4	-0.5	2.6	2.8
Metals and metal products	8,036	7,331	3.1	9.6	8.8	8.6
Household goods	8,411	8,871	-3.2	-5.2	9.2	10.4
Other manufactured products	14,495	14,026	6.0	3.3	15.8	16.5
All other goods	29,594	26,772	8.6	10.5	32.3	31.4

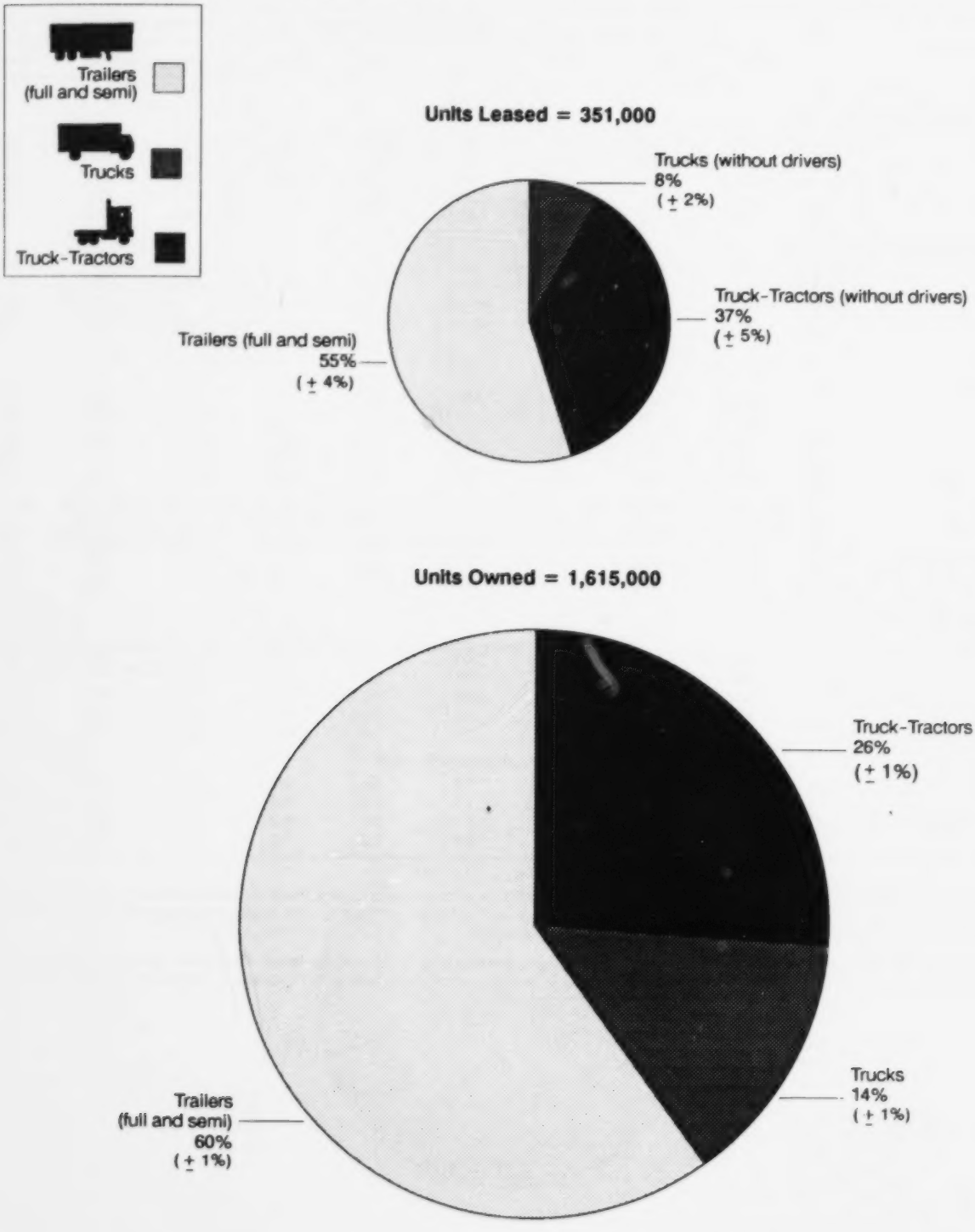
S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

X Not applicable.

Note: Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 10 for estimated measures of sampling variability (coefficients of variation) for dollar volume and year-to-year ratios. Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Note: Coefficients of variation have not been computed for benchmarked estimates prior to 1988, but approximate those previously published for unrevised data.

Figure 4.
Trucking Services (SIC 421): Estimated Inventories of Revenue Generating Freight Equipment, as of December 31, 1989


Trailers (full and semi)
Trucks
Truck-Tractors
Units Leased = 351,000
Trucks (without drivers) 8% (± 2%)
Truck-Tractors (without drivers) 37% (± 5%)
Trailers (full and semi) 55% (± 4%)
Units Owned = 1,615,000
Truck-Tractors 26% (± 1%)
Trucks 14% (± 1%)
Trailers (full and semi) 60% (± 1%)

Note: See table 11 for estimated measures of sampling variability (coefficients of variation) for inventories. Percentages are accompanied by a 90-percent confidence interval. See appendix A under Reliability of Data for further information on confidence intervals.

Table 6. **Trucking Services (SIC 421)—Estimated Inventories of Revenue Generating Freight Equipment, by Type of Carrier as of December 31, 1984 Through 1989**

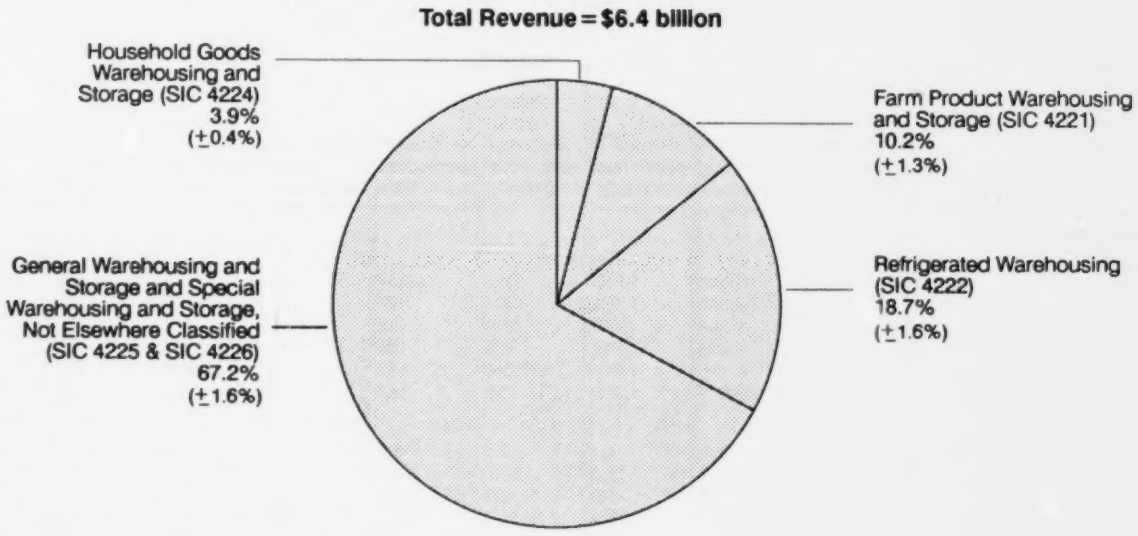
Equipment	All carriers			Specialty freight carriers			General freight carriers		
	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased	Total
Trucks									
Units (Thousands)									
1989	220	27	247	95	(S)	104	125	(S)	143
1988	216	25	241	95	(S)	103	121	(S)	138
1987	200	26	226	80	9	89	120	(S)	137
1986	178	23	201	69	(S)	77	108	(S)	124
1985	187	29	216	82	12	94	106	(S)	(S)
Percent change									
1989/1988	1.9	8.0	2.5	0.0	(S)	1.0	3.3	(S)	3.6
1988/1987	8.0	-3.9	6.6	18.8	(S)	15.7	0.8	(S)	0.7
1987/1986	12.4	13.0	12.4	15.9	(S)	15.6	11.1	(S)	10.5
1986/1985	-4.8	-20.7	-6.9	-15.9	(S)	-18.1	1.9	(S)	(S)
Truck-tractors									
Units (Thousands)									
1989	412	129	541	125	(S)	170	287	84	371
1988	r391	135	r526	r119	(S)	r163	272	91	363
1987	354	147	502	114	(S)	167	240	(S)	334
1986	331	131	461	110	(S)	165	221	75	295
1985	341	127	469	114	(S)	167	227	(S)	302
Percent change									
1989/1988	5.4	-4.4	2.9	5.0	(S)	4.3	5.5	-7.7	2.2
1988/1987	r10.5	-8.2	r4.8	r4.4	(S)	r-2.4	13.3	(S)	8.7
1987/1986	7.0	12.2	8.9	3.6	(S)	1.2	8.6	(S)	13.2
1986/1985	-2.9	3.2	-1.7	-3.5	(S)	-1.2	-2.6	(S)	-2.3
Trailers (Full and semi)									
Units (Thousands)									
1989	983	195	1,178	253	(S)	295	730	153	883
1988	966	185	1,151	235	(S)	278	731	142	873
1987	894	187	1,081	238	(S)	290	656	135	791
1986	881	174	1,055	213	(S)	254	668	(S)	801
1985	838	173	1,011	212	34	246	626	139	765
Percent change									
1989/1988	1.8	5.4	2.4	7.7	(S)	6.1	-0.1	7.8	1.2
1988/1987	8.1	-1.1	6.5	-1.3	(S)	-4.1	11.4	5.2	10.4
1987/1986	1.5	7.5	2.5	11.7	(S)	14.2	-1.8	(S)	-1.3
1986/1985	5.1	0.6	4.4	0.5	(S)	3.3	6.7	(S)	4.7

r Revised.

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

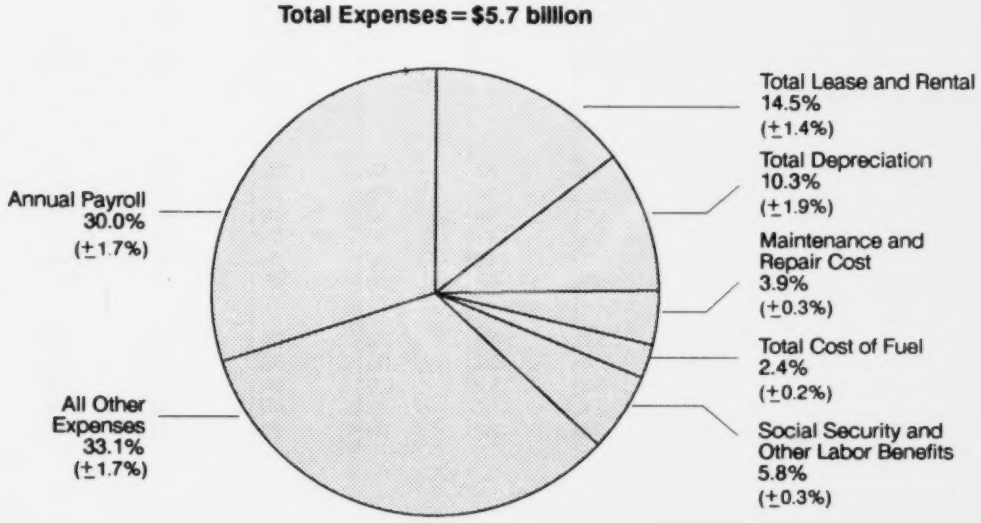
Note: Excludes private motor freight carriers that operate as auxiliary establishments to nontransportation companies and independent owner-operators with no paid employees. See table 11 for estimated measures of sampling variability (coefficients of variation). Detail may not add to total due to rounding.

Figure 5.
Public Warehousing Services (SIC 422): Estimated Percentages of 1989 Total Revenue, by Kind of Business


Total Revenue = $6.4 billion
Household Goods Warehousing and Storage (SIC 4224) 3.9% (±0.4%)
Farm Product Warehousing and Storage (SIC 4221) 10.2% (±1.3%)
Refrigerated Warehousing (SIC 4222) 18.7% (±1.6%)
General Warehousing and Storage and Special Warehousing and Storage, Not Elsewhere Classified (SIC 4225 & SIC 4226) 67.2% (±1.6%)

Note: See table 12 for estimated measures of sampling variability for public warehousing revenue. Percentages are accompanied by a 90-percent confidence interval. See appendix A under Reliability of Data for further information on confidence intervals.

Figure 6.
Public Warehousing Services (SIC 422): Estimated Percentages of 1989 Operating Expenses


Total Expenses = $5.7 billion
Total Lease and Rental 14.5% (±1.4%)
Total Depreciation 10.3% (±1.9%)
Maintenance and Repair Cost 3.9% (±0.3%)
Total Cost of Fuel 2.4% (±0.2%)
Social Security and Other Labor Benefits 5.8% (±0.3%)
All Other Expenses 33.1% (±1.7%)
Annual Payroll 30.0% (±1.7%)

Note: See table 12 for estimated measures of sampling variability for public warehousing expenses. Percentages are accompanied by a 90-percent confidence interval. See appendix A under Reliability of Data for further information on confidence intervals.

Table 7. **Public Warehousing Services (SIC 422)— Estimated Revenue and Expenses, by Kind of Business: 1984 Through 1989**
(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	Total operating revenue	Operating expenses							
		Total operating expenses	Annual payroll	Employer contributions to Social Security/ other benefits	Cost of purchased fuels	Lease and rental payments	Purchased repairs	Depreciation	All other
Public warehousing (SIC 422)[1]									
Millions of dollars									
1989	6,369	5,662	1,697	328	134	822	225	583	1,873
1988	5,930	5,242	1,626	301	127	794	209	512	1,673
1987	5,255	4,524	1,448	264	119	667	188	407	1,431
1986	5,115	4,442	1,462	274	134	(S)	190	380	1,352
1985	4,754	4,136	1,349	249	194	481	(NA)	361	(NA)
1984	4,427	3,808	1,255	236	187	459	(NA)	322	(NA)
Percent change									
1989/1988	7.4	8.0	4.4	9.0	5.5	3.5	7.7	13.9	12.0
1988/1987	12.8	15.9	12.3	14.0	6.7	19.0	11.2	25.8	16.9
1987/1986	2.7	1.9	−1.0	−3.7	−11.2	(S)	−1.1	7.1	5.8
1986/1985	7.6	7.4	8.4	10.0	−30.9	(S)	(NA)	5.3	(NA)
1985/1984	7.4	8.6	7.5	5.5	3.7	4.8	(NA)	12.1	(NA)
Refrigerated warehousing (SIC 4222)									
Millions of dollars									
1989	1,194	1,035	350	83	49	86	41	120	306
1988	1,185	1,018	353	76	50	87	37	114	301
1987	1,171	967	334	74	48	79	38	106	288
1986	1,080	951	340	(S)	50	(S)	39	(S)	257
1985	958	832	305	55	73	43	(NA)	95	(NA)
1984	897	755	280	51	68	(S)	(NA)	81	(NA)
Percent change									
1989/1988	0.8	1.7	−0.9	9.2	−2.0	−1.2	10.8	5.3	1.7
1988/1987	1.2	5.3	5.7	2.7	4.2	10.1	−2.6	7.6	4.5
1987/1986	8.4	1.7	−1.8	(S)	−4.0	(S)	−2.6	(S)	12.1
1986/1985	12.7	14.3	11.5	(S)	−31.5	(S)	(NA)	(S)	(NA)
1985/1984	6.8	10.2	8.9	7.8	7.4	(S)	(NA)	17.3	(NA)
Household goods warehousing and storage (SIC 4224)									
Millions of dollars									
1989	247	203	82	13	(S)	(S)	(S)	(S)	(S)
1988	222	181	75	(S)	(S)	(S)	(S)	(S)	(S)
1987	215	169	66	10	(S)	20	(S)	(S)	(S)
1986	205	159	61	10	(S)	19	(S)	(S)	(S)
1985	200	168	60	(S)	(S)	(S)	(NA)	(S)	(NA)
1984	195	(S)	(S)	(S)	(S)	(S)	(NA)	(S)	(NA)
Percent change									
1989/1988	11.3	12.2	9.3	(S)	(S)	(S)	(S)	(S)	(S)
1988/1987	3.3	7.1	13.6	(S)	(S)	(S)	(S)	(S)	(S)
1987/1986	4.9	6.3	8.2	0.0	(S)	5.3	(S)	(S)	(S)
1986/1985	2.5	−5.4	1.7	(S)	(S)	(S)	(NA)	(S)	(NA)
1985/1984	2.6	(S)	(S)	(S)	(S)	(S)	(NA)	(S)	(NA)

Table 7. **Public Warehousing Services (SIC 422)— Estimated Revenue and Expenses, by Kind of Business: 1984 Through 1989**—Continued

(Estimates are revised to reflect a benchmarking to the 1987 Census of Transportation. See Introduction for a description of the benchmarking process)

Item	Total operating revenue	Operating expenses							
		Total operating expenses	Annual payroll	Employer contributions to Social Security/ other benefits	Cost of purchased fuels	Lease and rental payments	Purchased repairs	Depreciation	All other
General warehousing and storage and special warehousing and storage, not elsewhere classified (SIC 4225, 4226)									
Millions of dollars									
1989	4,279	3,899	1,123	210	68	676	149	(S)	1,280
1988	3,918	3,525	1,061	191	61	653	137	(S)	1,095
1987	3,283	2,905	917	159	56	534	118	234	887
1986	3,335	2,913	940	167	67	(S)	120	205	874
1985	3,103	2,705	863	166	94	397	(NA)	191	(NA)
1984	2,827	2,466	793	157	89	371	(NA)	162	(NA)
Percent change									
1989/1988	9.2	10.6	5.8	10.0	11.5	3.5	8.8	(S)	16.9
1988/1987	19.3	21.3	15.7	20.1	8.9	22.3	16.1	(S)	23.5
1987/1986	−1.6	−0.3	−2.5	−4.8	−16.4	(S)	−1.7	14.2	1.5
1986/1985	7.5	7.7	8.9	0.6	−28.7	(S)	(NA)	7.3	(NA)
1985/1984	9.8	9.7	8.8	5.7	5.6	7.0	(NA)	17.9	(NA)

NA Not available.

S Data do not meet publication standards because of high sampling variability or poor response quality. Some unpublished estimates can be derived from this table by subtracting published data from their respective totals. However, the figures obtained by such subtraction are subject to high sampling variability or poor response quality. These unpublished data are for internal use only.

[1]Totals include farm product warehousing and storage (SIC 4221) not shown separately.

Note: See table 12 for estimated measures of sampling variability (coefficients of variation). Estimates are not adjusted for price changes. Detail may not add to total due to rounding.

Table 8. **Trucking Services (SIC 421)—Estimated Coefficients of Variation for Revenue and Expense Estimates, and Estimates of Year-to-Year Ratios, by Type of Carrier: 1988 and 1989**

Item	All carriers			Specialty freight carriers			General freight carriers		
	Dollar volume		Year-to-year ratio	Dollar volume		Year-to-year ratio	Dollar volume		Year-to-year ratio
	1989	1988	1989/1988	1989	1988	1989/1988	1989	1988	1989/1988
Operating revenue									
Total	2.7	1.6	2.1	7.8	6.5	3.1	5.4	4.3	2.1
Motor carrier	2.7	1.6	1.9	7.3	6.2	3.0	5.1	4.2	2.0
Local trucking	5.6	5.1	4.2	11.6	11.5	8.0	12.4	10.5	4.6
Intercity trucking	3.3	2.6	1.8	9.4	7.2	4.2	4.9	4.1	1.9
Operating expenses									
Total	2.8	1.8	2.0	8.1	7.3	3.5	5.5	4.4	2.0
Annual payroll	1.8	1.4	1.0	7.6	7.5	1.6	3.1	2.8	1.4
Employer contributions to Social Security and other supplemental labor benefits	1.6	1.9	1.6	7.4	6.9	2.1	2.4	2.6	1.8
Purchased fuels	5.5	5.1	2.6	9.8	8.2	5.3	8.0	7.1	3.9
Cost of purchased transportation	7.2	5.8	5.0	14.1	12.6	7.6	10.6	8.7	5.3
Lease and rental payments	7.1	7.6	3.7	16.6	15.1	5.5	12.3	12.7	3.4
Cost of insurance	7.0	5.8	2.4	6.6	7.0	3.6	12.0	10.3	3.4
Maintenance and repair costs	4.7	3.7	3.0	9.2	8.7	4.1	8.3	6.6	2.9
Depreciation	4.6	4.3	2.1	10.9	12.6	5.4	7.4	5.9	3.2
Taxes and licenses	6.6	5.6	4.8	6.5	7.7	6.8	10.7	6.8	5.1
Other operating expenses	6.2	5.1	4.1	11.7	10.3	5.5	7.1	7.6	3.9

Note: Coefficients of variation have not been computed for benchmarked estimates prior to 1988, but approximate those previously published for unrevised data.

Table 9. **Trucking Services (SIC 421)—Estimated Coefficients of Variation for Operating Expenses, by Type of Carrier: 1988 and 1989**

Operating expenses	All carriers				Specialty freight carriers				General freight carriers			
	Dollar volume		Percent of total operating expenses		Dollar volume		Percent of total operating expenses		Dollar volume		Percent of total operating expenses	
	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988
Total	2.8	1.8	(X)	(X)	8.1	7.3	(X)	(X)	5.5	4.4	(X)	(X)
Annual payroll	1.8	1.4	2.1	1.4	7.6	7.5	3.1	4.0	3.1	2.8	2.8	2.3
Employer contributions to Social Security and other supplemental benefits	1.6	1.9	2.3	1.7	7.4	6.9	5.8	5.1	2.4	2.6	3.7	3.4
Purchased fuels	5.5	5.1	4.3	4.4	9.8	8.2	7.6	9.6	8.0	7.1	4.2	3.9
Trucks and motor vehicles	5.5	5.3	4.4	4.5	9.7	8.4	8.0	10.2	8.0	7.2	4.3	4.0
Heat, power, or generating electricity	7.4	7.1	5.9	7.6	17.6	15.7	12.1	14.5	10.4	8.2	7.5	6.9
Lease and rental payments	7.1	7.6	6.5	7.7	16.6	15.1	11.5	11.0	12.3	12.7	8.9	10.1
Buildings, structures, and offices	7.8	8.0	6.9	7.6	19.3	17.4	13.4	12.2	13.2	(S)	9.0	(S)
Machinery and equipment (except motor vehicles)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Cost of purchased transportation	7.2	5.8	5.7	5.0	14.1	12.6	8.1	8.3	10.6	8.7	6.3	5.9
Trucks and other motor vehicles rented or leased with drivers	8.1	7.2	7.3	6.9	15.1	13.5	8.7	9.2	9.6	8.7	7.7	7.7
Trucks and other motor vehicles rented or leased without drivers	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Other purchased transportation including railroads, airlines, water, and other motor carriers	9.4	11.2	9.0	11.2	(S)	(S)	(S)	(S)	11.3	11.9	8.9	9.7
Cost of insurance	7.0	5.8	5.8	5.6	6.6	7.0	5.4	4.9	12.0	10.3	8.7	8.0
Public liability and property damage insurance	9.2	8.3	8.0	8.2	6.2	8.3	7.3	6.3	15.3	14.2	12.0	12.3
Insurance for loss or damage to motor vehicles and their cargos	5.7	6.3	4.8	5.8	10.9	7.3	8.8	7.3	9.2	9.1	5.7	6.4
Insurance for buildings, structures, offices, and machinery and equipment (except motor vehicles)	9.9	6.4	9.5	6.9	18.6	16.5	14.3	14.1	14.0	9.8	13.1	8.5
Maintenance and repair costs	4.7	3.7	3.5	4.0	9.2	8.7	6.3	7.5	8.3	6.6	3.2	3.3
Motor vehicle parts for self-repair, including tires and tubes	5.4	4.6	4.3	4.6	10.7	11.1	9.0	10.6	7.4	6.3	3.1	3.9
Purchased repairs to trucks and other motor vehicles	6.1	5.2	5.2	5.4	9.8	9.9	8.1	9.4	11.7	9.9	6.6	7.0
Purchased repairs to buildings, structures, and offices	7.2	7.0	8.0	7.4	15.9	14.1	17.3	12.3	9.7	10.2	8.7	9.0
Purchased repairs to machinery and equipment (except motor vehicles)	13.6	14.4	13.0	16.3	(S)	(S)	(S)	(S)	13.5	(S)	9.8	(S)
Depreciation	4.6	4.3	3.5	3.6	10.9	12.6	6.3	7.5	7.4	5.9	3.8	3.0
Trucks and other motor vehicles	5.3	4.8	4.6	4.2	11.7	11.4	7.7	8.2	8.6	6.8	4.9	4.0
Buildings, structures, and offices	6.7	5.3	6.5	6.0	15.6	(S)	19.4	(S)	5.7	4.8	7.3	6.1
Machinery and equipment (except motor vehicles)	7.3	11.8	6.3	10.8	18.5	(S)	15.5	(S)	7.8	8.1	6.1	6.9
Taxes and licenses	6.6	5.6	4.8	5.3	6.5	7.7	6.4	8.8	10.7	6.8	5.0	4.7
Other operating expenses	6.2	5.1	5.1	4.7	11.7	10.3	7.7	6.9	7.1	7.6	3.3	4.7

S Data do not meet publication standards because of high sampling variability or poor response quality.
X Not applicable.

Note: Coefficients of variation have not been computed for benchmarked estimates prior to 1988, but approximate those previously published for unrevised data.

Table 10. **Trucking Services (SIC 421)—Estimated Coefficients of Variation for Estimates of Motor Carrier Revenue, by Size of Shipments and Commodities Handled: 1988 and 1989**

Item	Dollar volume		Year-to-year ratio 1989/1988
	1989	1988	
Motor carrier revenue	2.7	1.6	1.9
Size of shipments			
Truckload	4.3	3.7	1.9
Less-than-truckload	5.3	4.8	2.3
Commodities handled			
Agricultural and food products	11.1	9.2	4.3
Mining products, unrefined	(S)	(S)	(S)
Building materials	15.5	13.4	7.1
Forestry, wood, and paper products	11.6	12.2	3.8
Chemicals and allied products (except petroleum)	12.8	12.6	4.2
Petroleum and petroleum products	14.2	15.1	5.8
Metals and metal products	13.0	9.7	3.2
Household goods	10.1	9.3	3.9
Other manufactured products	9.0	7.8	6.0
All other goods	7.0	5.6	4.2

S Data do not meet publication standards because of high sampling variability or poor response quality.

Note: Coefficients of variation have not been computed for benchmarked estimates prior to 1988, but approximate those previously published for unrevised data.

Table 11. **Trucking Services (SIC 421)—Estimated Coefficients of Variation for Revenue Generating Freight Equipment Estimates, by Type of Carrier: December 31, 1988 and 1989**

Equipment	All carriers			Specialty freight carriers			General freight carriers		
	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased	Total
Trucks									
1989	4.1	22.8	4.7	9.6	(S)	8.6	6.9	(S)	9.6
1988	4.0	18.3	4.4	9.2	(S)	8.5	7.1	(S)	8.5
Year-to-year ratio 1989/1988	3.1	11.0	3.2	6.5	(S)	5.7	3.7	(S)	4.1
Truck-tractors									
1989	5.4	16.3	6.9	9.6	(S)	10.4	8.3	(S)	8.8
1988	′5.2	12.2	′6.1	′21.5	(S)	′16.0	7.9	17.6	8.6
Year-to-year ratio 1989/1988	′2.4	6.0	′2.1	′22.9	(S)	′17.3	2.8	(S)	2.5
Trailers (Full and semi)									
1989	5.8	12.2	5.9	9.7	(S)	9.7	7.5	15.4	7.3
1988	5.9	13.0	5.6	8.8	(S)	8.7	8.2	15.2	7.6
Year-to-year ratio 1989/1988	1.8	5.7	1.6	5.9	(S)	5.4	1.8	5.4	1.8

′Revised.
S Data do not meet publication standards because of high sampling variability or poor response quality.

Table 12. **Public Warehousing Services (SIC 422)— Estimated Coefficients of Variation for Revenue and Expense Estimates, by Kind of Business: 1988 and 1989**

Item	Total operating revenue	Operating expenses							
		Total operating expenses	Annual payroll	Employer contributions to Social Security/ other benefits	Cost of purchased fuels	Lease and rental payments	Purchased repairs	Depreciation	All other
Public warehousing(SIC 422)[1]									
Dollar volume									
1989	3.8	3.5	3.1	2.8	4.7	6.2	4.3	18.2	5.0
1988	3.5	3.7	3.0	3.3	8.6	5.9	6.2	13.1	4.4
Year-to-year ratio									
1989/1988	2.9	3.0	1.8	2.0	6.4	5.0	5.5	4.2	6.3
Refrigerated warehousing (SIC 4222)									
Dollar volume									
1989	4.8	4.9	5.1	4.6	9.2	20.8	10.0	10.1	5.8
1988	3.2	3.6	3.4	3.1	13.3	17.5	6.9	9.1	5.7
Year-to-year ratio									
1989/1988	2.8	2.0	3.0	3.6	6.7	7.8	6.0	3.2	3.9
Household goods warehousing and storage (SIC 4224)									
Dollar volume									
1989	6.1	7.2	6.8	7.6	(S)	(S)	(S)	(S)	(S)
1988	3.8	5.8	7.0	(S)	(S)	(S)	(S)	(S)	(S)
Year-to-year ratio									
1989/1988	6.4	7.0	4.5	(S)	(S)	(S)	(S)	(S)	(S)
General warehousing and storage and special warehousing and storage, not elsewhere classified (SIC 4225, 4226)									
Dollar volume									
1989	4.2	4.1	3.6	3.6	5.0	7.1	4.9	(S)	6.8
1988	4.2	4.4	3.1	4.5	8.7	6.1	6.9	(S)	5.9
Year-to-year ratio									
1989/1988	4.0	4.0	2.9	3.3	12.4	5.5	7.2	(S)	9.0

S Data do not meet publication standards because of high sampling variability or poor response quality.

[1]Totals include farm product warehousing and storage (SIC 4221) not shown separately.

Coefficients of variation have not been computed for benchmarked estimates prior to 1988, but approximate those previously published for unrevised data.

APPENDIX A. EXPLANATORY MATERIAL

DEFINITION OF TERMS

Firm. A business organization consisting of one or more domestic establishments/locations under common ownership or control.

Operating Revenue. Charges or billings for services rendered and any sales of merchandise during 1989, even though payment may have been received at a later date. Revenue does not include sales taxes or other taxes collected from customers and remitted directly by the firm to a local, State, or Federal tax agency; nor do they include nonoperating receipts such as income from investments, loans, the sale of securities, real estate, etc. The sources of revenue requested on the questionnaires were:

a. *Motor carrier revenue.* Charges or billings for the transportation of freight by motor vehicles including the rental and leasing of vehicles with drivers.

b. *Commissions (trucking firms only.)* Fees for providing brokerage services, making payroll deductions, and collecting freight charges for other carriers. Booking, origin, and packing commissions of household goods carriers are also included.

c. *Lease and rental revenue (trucking firms only.)* Charges or billings for the short-term rental or extended-term leasing (with or without maintenance) of trucks, truck-tractors, or trailers, without drivers.

d. *Warehousing and storage revenue.* Charges or billings for the storage of shipments in transit, or for permanent or regular storage. Included are rental receipts from the operation of mini-warehouses and self-service storage facilities. Revenue from subleasing warehousing space to others is excluded.

e. *Warehouse handling revenue.* Amounts charged or billed separately for labor, packing and crating, handling, loading and unloading, and other accessory services.

f. *Terminal facilities revenue (trucking firms or terminal operators only.)* Amounts charged or billed to other carriers for the use of terminal facilities operated by the company, including amounts billed separately for repair services. Revenue received from other operating units of the company is excluded.

g. *Sales of merchandise (warehousing firms only).* Total sales of merchandise owned by this firm.

h. *Commissions and fees (warehousing firms only).* Commissions or brokerage fees from the sale of merchandise owned by others.

i. *All other operating revenue:*

- *Trucking firms.* Included are sales from the operation of lunchrooms and restaurants, receipts from parking and storage of vehicles, and snowplow work. The value of used equipment or vehicles sold, as well as revenue received from any equity or full-payout leasing arrangement (finance leasing); and nonoperating receipts, such as income from investments, loans, the sale of securities, real estate, etc., are excluded.
- *Warehousing firms.* Included are receipts from compressing, bailing, etc., and the leasing of vehicles without drivers. The value of used equipment or vehicles sold, as well as revenue received from any equity or full-payout leasing arrangement (finance leasing); and nonoperating receipts, such as income from investments, loans, the sale of securities, real estate, etc., are excluded.

Operating Expenses. Costs incurred during 1989, even though payment may have been made at a later date. Interest on loans and sales taxes and other taxes collected from customers and paid directly to a taxing authority were excluded. The types of expenses requested on the questionnaires were:

a. *Annual payroll.* All salaries, wages, commissions, bonuses, and allowances for vacation, holiday, and sick leave paid to employees in 1989. For corporations, it includes amounts paid to officers and executives; for unincorporated businesses, it does not include payments to proprietors or partners. Annual payroll is reported before employee deductions for Social Security , withholding taxes, insurance, union dues, etc.

b. *Employer contributions for Social Security and other supplemental labor benefits.* The employer's cost for all legally required and voluntary employee fringe benefit programs, including employer's Social Security contributions, unemployment compensation, worker's life and health insurance premiums, pension plans, stock purchases for employees, etc.

c. *Cost of purchased fuels.* The cost of gasoline and other fuels (including all applicable Federal and State gasoline, diesel fuel, and oil taxes) used for trucks and other motor vehicles. Warehousing firms also included fuels consumed for heat, power, or generating electricity; trucking firms reported these costs separately.

d. *Cost of purchased transportation (trucking firms only):*

   1. *Trucks and other motor vehicles rented or leased with drivers from agents.* Payments made to agents for furnishing trucks, truck-tractors, or tractor-trailers with drivers for the exclusive use and control of the firm.

   2. *Trucks and other motor vehicles rented or leased with drivers, except from agents.* Payments made to other carriers (except agents) for the rental or leasing of trucks, truck-tractors, or tractor-trailers with drivers for the exclusive use and control of the firm.

   3. *Trucks and other motor vehicles rented or leased without drivers.* Payments made to other carriers for the rental or leasing of trucks, truck-tractors, or tractor-trailers without drivers for the exclusive use and control of the firm.

   4. *Other purchased transportation.* The cost of other purchased transportation, including payments for individual shipments and part loads in the vehicle of other carriers when the hauling carrier retains control of the vehicle and driver; payments to railroads, water carriers, and others for the transportation of this firm's loaded or empty vehicles and containers; and payments for the delivery of small shipments by parcel post or messenger.

e. *Lease and rental payments for buildings, structures, and offices.* Payments made to other companies for the rental or leasing of buildings, structures, and offices under either a capital or operating lease. Payments made under a capital lease were reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. Payments for the use of depreciable assets owned by a parent company or subsidiary were excluded.

f. *Lease and rental payments for machinery and equipment.* Payments made to other companies for the rental and leasing of machinery and equipment under either a capital or operating lease. Payments made under a capital lease were reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. Warehousing firms included payments for the rental and leasing of motor vehicles. Trucking firms reported these payments under purchased transportation. Payments for use of depreciable assets owned by a parent company or subsidiary were excluded.

g. *Cost of insurance (trucking firms only):*

   1. *Public liability and property damage insurance.* The net cost (premiums less dividends or refunds) of commercial insurance to protect the company against liability for deaths or injuries of persons (other than employees) and damages to property of others resulting from the operation of owned and leased vehicles.

   2. *Insurance for loss or damage to motor vehicles and their cargos.* The net cost of commercial insurance to protect the company against liability for claims resulting from loss, damage, or delay of property entrusted to it for transportation or storage; and losses from fire, theft, or collision damage to owned or leased vehicles.

   3. *Insurance for buildings, structures, offices, and machinery and equipment (other than trucks and other motor vehicles).* The net cost of commercial insurance to protect the company against loss or damage to buildings, structures, offices, machinery, and equipment (other than motor vehicles) caused by fire, flood, wind, boiler explosion, or any other cause.

h. *Maintenance and repair costs:*

   1. *Motor vehicle parts for self-repair, including tires and tubes (trucking firms only).* The amount paid for tires and tubes and parts used in repairs to company owned or leased vehicles by company employees.

   2. *Purchased repair services for trucks and other motor vehicles (trucking firms only).* The amount paid to others for repair of company owned or leased vehicles, including parts and labor. Repairs performed on leased assets and paid for under the lease agreement and improvements for which depreciation accounts are ordinarily maintained were excluded.

   3. *Purchased repairs for buildings, structures, and offices.* The amount paid to others for repair of company owned or leased buildings, structures, and offices. Repairs performed on leased assets and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained were excluded.

   4. *Purchased repairs for machinery and equipment.* The amount paid to others for repair of company owned or leased machinery and equipment. Repairs performed on leased assets and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained were excluded. Warehousing firms reported repairs to motor vehicles here; trucking firms reported these costs in 1 and 2 above.

i. *Depreciation:*

1. *For buildings, structures, and offices.* Depreciation charges against depreciable assets (except machinery and equipment), including depreciation on assets leased to others under a capital lease agreement. These charges are not adjusted for the value of depreciable assets sold or traded for replacement purposes.

2. *For machinery and equipment.* Depreciation charges for machinery and equipment including depreciation on vehicles leased to others under a capital lease agreement. Warehousing firms included depreciation of motor vehicles with other machinery and equipment. Trucking firms reported these charges separately. These charges are not adjusted for the value of depreciable assets sold or traded for replacement purposes.

j. *Taxes and licenses.* Payments to Federal, State, and local governments for vehicle licensing and registration, tolls, and other vehicle use taxes. It does not include gasoline, diesel fuel, or oil taxes, nor real estate or personal property taxes.

k. *All other operating expenses.* Payments for real estate and personal property taxes, the cost of purchased utilities and communication services, advertising, office supplies, losses by damage or theft not covered by insurance, bad debt losses, etc. Interest on loans, as well as sales taxes and other taxes collected directly from customers and paid directly to a taxing authority were excluded.

Classification of Carrier

a. *Specialty freight.* Carriers that are limited to transporting articles which, because of their size, shape, weight, or other inherent characteristics, require special equipment for loading, unloading, or transporting. These commodities include:

- Household goods
- Heavy machinery
- Petroleum products
- Refrigerated products
- Agricultural commodities
- Motor vehicles
- Building materials
- Dangerous or hazardous materials
- Forest products

b. *General freight.* Carriers capable of handling a wide variety of commodities including all or some of those listed above.

Local Trucking. Carriers primarily engaged in furnishing trucking or transfer services, with or without storage, within a city, town, or other local area including adjoining municipalities or suburban areas.

Intercity Trucking. Carriers primarily engaged in furnishing "over the road" trucking services either as a common carrier or under special or individual contract or agreement.

Less-Than-Truckload. Shipments with an actual weight of less than 10,000 pounds.

Truckload. Shipments with an actual weight of 10,000 pounds or more.

Commodities Handled

a. *Agricultural and food products.* Includes live animals (cattle, horses, poultry, hogs, etc.), seafood, fresh farm products (grain, flowers, nursing stock, raw milk, etc.), and processed food and tobacco products (canned goods, prepared meats, frozen foods, beverages, cigarettes, etc.).

b. *Mining products, unrefined.* Includes crude oil, coal and metal ores.

c. *Building materials.* Includes gravel, sand, concrete, flat glass, etc. Excludes cut lumber.

d. *Forestry, wood, and paper products.* Includes logs and forest products, lumber and fabricated wood products (except furniture), paper and paper products.

e. *Chemicals and allied products (except petroleum).* Includes chemicals and drugs (fertilizers, pesticides, cosmetics, paints, etc.), plastics, and rubber products.

f. *Petroleum and petroleum products.* Includes paving and roofing materials.

g. *Metals and metal products.* Includes primary metal products (pipes, ingots, billets, sheets, etc.), fabricated metal products, machinery, and transportation equipment and parts.

h. *Household goods.* Includes household and office furniture from homes, offices, etc.

i. *Other manufactured products.* Includes furniture and hardware (not involved in household moving), glass products, textiles and apparels (fibers, leather products, carpets, clothing, etc.), and miscellaneous manufactured products (photographic goods, watches, clocks, jewelry, toys, etc.).

j. *All other.* Includes scrap, garbage, trash, septic tank waste, industrial water, mixed cargo (including delivery of small packages), etc.

SAMPLE DESIGN

The Motor Freight Transportation and Warehousing Survey is based on a probability sample, selected from employers contained on the Census Bureau's Standard Statistical Establishment List (SSEL). The SSEL includes all employer businesses that make Social Security payments for employees under the Federal Insurance Contributions Act (FICA). The sample is updated quarterly to account for new employer businesses (births) and employers which go out of business (deaths). The sample was originally drawn from establishments on the SSEL as of December 31, 1984. The SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers for businesses with reported payroll for at least one quarter of 1984. The EI number is the primary taxpayer identifier used by employer business firms. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1984. These lists contained information on sales or receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the sampling frame was available, a study was made using files from the 1983 SSEL and 1982 Census of Service Industries. This study determined the stratification of the sampling units based on payroll and kind of business, and the optimal allocation of the sample necessary to meet specified sampling variability objectives for revenue of different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it often determined the type of sampling unit.

The sampling units consist of both companies and EI's. If a company had total revenue (estimated from payroll) above the corresponding cutoff for its major kind of business, or total revenue for any minor kind of business above the corresponding cutoff for the minor kind of business, the company was selected into the sample with certainty. The company, which might consist of many EI's, was then the sampling unit; therefore, any new establishments that the company might acquire, even if under new or different EI's, were in the sample with certainty. The EI was the sampling unit for all single-establishment companies, whether or not selected with certainty. All multiestablishment companies not selected with certainty were treated on an EI basis; that is, the EI was the sampling unit.

To be eligible for the initial sampling, an EI had to be active, (i.e., had payroll in 1984 and was on the latest available Internal Revenue Service (IRS) active mailing list for FICA taxpayers). The EI's were then stratified according to their major kind of business and their estimated revenue. Within each stratum, a simple random sample of EI's was selected. The sampling rates for these strata varied between 1 in 3 and 1 in 330.

For all EI "births" after the initial selection, a two-phase selection procedure is used. EI births are new EI's recently assigned by the IRS and on the latest available IRS mailing list for FICA taxpayers. In the first phase, births are arranged by kind-of-business and size (expected employment or quarterly payroll). A relatively large sample is then drawn and canvassed in order to obtain a more reliable measure of size (revenue of two recent months) and to correct or obtain a more detailed kind-of-business code, if needed.

Using this more reliable information, the births selected in phase one are subjected to probability proportional-to-size sampling with overall probabilities equivalent to those used in drawing the initial sample from the 1984 SSEL. Because of the lag in identifying births and the time needed to accomplish the two-phase birth selection procedure, births are actually added to the sample on an average of 12 to 18 months after they begin operation. The birth selection procedure is carried out quarterly.

To be eligible for the sample canvass and tabulation, a business must meet both of the following requirements:

a. It must be on the latest available IRS mailing list for FICA taxpayers from the previous quarter.

b. It must have been selected from either the SSEL or the file of employer births.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. Rather, these businesses are contacted, and if there are successor businesses, they are added to the survey.

In order to account for births during the period between the onset of activity and the time of birth selection, the imputation procedure estimates a full year of data for all cases which go out of business but which are still active on the IRS mailing list.

RELIABILITY OF DATA

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of the data. The accuracy of a survey result is determined by the joint effect of sampling and nonsampling errors.

MEASURES OF SAMPLING VARIABILITY

Because the estimates were based on a sample, exact agreement with the results that would be obtained from a complete census of the trucking and warehousing industries using the same enumeration procedure was not expected. However, because each firm in the United States in the specified Standard Industrial Classifications

(SICs) had a chance of being selected for the sample and because the probability of selection for each firm in the sample was known, it was possible to estimate the sampling variability of the estimates made from the sample.

The standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent divided by the value being estimated. Note that measures of sampling variability, such as the standard error or coefficient of variation, are estimated from the sample and are also subject to sampling variability. Coefficients of variation for dollar volume estimates and year-to-year changes are shown in tables 8 through 12.

The coefficients of variation presented in these tables permit certain confidence statements about the sample estimates. The particular sample used in this survey was one of a large number of samples of the same size that could have been selected using the same design. In about two out of three of these samples, the estimates would differ from a complete enumeration by less than the corresponding percentages for that estimate shown in the sampling variability tables. In about 9 out of 10 of these samples, the estimates would differ from the results of a complete enumeration by less than 1.65 times the percentages shown.

To illustrate the computations involved in the above confidence statements as related to dollar volume estimates, assume that an estimate of revenue published in table 1 is $10,750 million for a particular year and that the coefficient of variation for this estimate, as given in table 8 is 1.8 percent, or 0.018. Multiplying $10,750 million by 0.018 yields $194 million. Therefore, a 67-percent confidence interval is $10,556 million to $10,944 million ($10,750 million plus or minus $194 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67-percent) of the intervals would contain the figure obtained from a complete enumeration. Typical practice is to construct a 90 or 95-percent confidence interval. Using the same illustration, a 90-percent confidence interval would be $10,430 million to $11,070 million ($10,750 million plus or minus $320 million. The $320 million is computed by multiplying $194 million by 1.65).

Some comparisons appearing in the introduction under Summary of Data are accompanied by a 90-percent confidence interval. Thus, a statement such as "up 0.8 percent (1.3 percent)" indicates a 90-percent confidence interval from -0.5 to + 2.1. When the confidence interval contains zero (as in this example), it is uncertain whether there is actually an increase or decrease.

NONSAMPLING ERRORS

As calculated for this report, the coefficient of variation measures sampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

The major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which failed edit. For all kinds of business combined, imputed revenues amount to about 14 percent of the national revenue estimates.

Appendix B. Kind-of-Business Classifications

The motor freight transportation and warehousing industries included in this report are classified in accordance with the 1972 edition of the *Standard Industrial Classification Manual*, and the 1977 supplement, issued by the Office of Management and Budget for purposes of providing a standard for the classification and presentation of data by all Federal agencies. Each establishment, firm, or organization is classified according to the major service (determined by the volume of revenue) it provides. Establishments, firms, and organizations owned and operated by Federal, State, or local governments are excluded. The following is a description of each kind-of-business classification presented in this report.

TRUCKING, LOCAL AND LONG DISTANCE (SIC 421)

Establishments primarily engaged in furnishing trucking or transfer services within a city, town, or other local area including adjoining municipalities or suburban areas, with or without storage, or furnishing "over-the-road" trucking services either as common carriers or under special and individual contracts or agreements.

PUBLIC WAREHOUSING (SIC 422)

Establishments primarily engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature.

Farm Product Warehousing and Storage (SIC 4221)

Establishments primarily engaged in the storage of farm products, including cotton compresses and warehouses, grain elevators, tobacco warehouses, etc.

Refrigerated Warehousing (SIC 4222)

Establishments primarily engaged in the storage of perishable goods under refrigeration. The establishments may also rent locker space for the storage of food products for individual households, and provide incidental services for processing, preparing, or packaging such food for storage.

Household Goods Warehousing and Storage (SIC 4224)

Establishments primarily engaged in the storage of furniture and other household goods, but not engaged in local trucking.

General and Special Warehousing and Storage (SIC 4225, 6)

Establishments primarily engaged in the warehousing and storage of a general line of goods, or in the storage of special products, not elsewhere classified, such as automobiles (dead storage only), furs (for the trade), textiles, whiskey, and goods at foreign trade zones.

Terminal and Joint Terminal Maintenance Facilities For Motor Freight Transportation (SIC 4231)

Establishments primarily engaged in the operation of terminal facilities used by highway-type property carrying vehicles operated by others. Also included are such terminal establishments which also provide maintenance and service for motor vehicles operated in common or contract property carrying service by others.

Appendix C. Report Forms

B-514

FORM B-514 (1-26-90) U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

OMB No. 0607-0510: Approval Expires 12/31/92

1989 MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING SURVEY

Public reporting burden for this collection of information is estimated to average 2.5 hours per response, including the time for assembling data from existing records and completing the form. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Associate Director for Management Services, Paperwork Reduction Project 0607-0510, Room 2027, Bureau of the Census, Washington, DC 20233; and to the Office of Management and Budget, Paperwork Reduction Project 0607-0510, Washington, DC 20503.
PLEASE INCLUDE FORM NAME AND NUMBER IN ALL CORRESPONDENCE.

In correspondence pertaining to this report, please refer to the IDENTIFICATION Number shown below.

100 CENSUS USE 1☐M 2☐T

PENALTY FOR FAILURE TO REPORT
DUE DATE: 30 DAYS AFTER RECEIPT OF FORM

NOTICE -- Response to this inquiry **is required by law (title 13, U.S. Code)**. By the same law, your report to the Census Bureau is **confidential**. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are **immune from legal process**.

Please complete this form and RETURN TO

BUREAU OF THE CENSUS
1201 East Tenth Street
Jeffersonville, IN 47132

IF BOOK FIGURES ARE NOT AVAILABLE, CAREFULLY PREPARED ESTIMATES ARE ACCEPTABLE.

YOUR FILE COPY

(Please correct any error in name, address, and ZIP Code)

SURVEY COVERAGE

This report covers all domestic establishments operated by your company and its subsidiaries primarily engaged in providing commercial motor freight transportation or warehousing services, as listed below. **Exclude** subsidiaries or operating units which have been requested to submit separate Motor Freight Transportation and Warehousing Survey Reports to the Bureau of the Census.

- Local Trucking -- Establishments primarily engaged in furnishing trucking or transfer services, with or without storage, within a city, town, or other local area including adjoining municipalities or suburban areas.
- Intercity Trucking -- Establishments primarily engaged in furnishing "over-the-road" trucking services either as common carriers or under special or individual contracts or agreements.
- Public Warehousing -- Establishments primarily engaged in the storage of farm products; perishable goods under refrigeration; household goods; a general line of goods; or special goods such as automobile dead storage, furs for the trade, textiles, whiskey, or goods at foreign trade zones. Mini-warehouses and self-service storage facilities are also included.
- Terminal and Joint Terminal Maintenance Facilities for Motor Freight Transportation -- Establishments primarily engaged in the operation of terminal facilities used by highway-type property carrying vehicles operated by others.

If your activities do not appear to be covered by this survey, please describe your kind of business in the "Remarks" section.

REPORTING INSTRUCTIONS

Please read all instructions and complete all items in this report. **This will** save on costly and time-consuming correspondence.

- Report only for those establishments (physical locations) **primarily** engaged in the activities defined in the coverage section.
- For establishments sold or acquired during 1989, report only for the period that the locations were operated by this company.
- Report data for the calendar year 1989. If calendar year records are not available, data for the latest fiscal year will be accepted. Indicate the period covered in item 8. Please note, however, that estimates for the calendar year are preferable to book figures covering a different time period.
- For operating revenues, report all charges or billings for services rendered and any sales of merchandise during 1989 even though payments may have been received at a later date. **Exclude** sales taxes and other taxes collected from customers and paid directly to a taxing authority. **Exclude** nonoperating revenues such as income from investments, loans, the sale of securities or real estate. Also **exclude** revenues from a parent organization, franchise locations owned by others, and any franchise or license fees.
- For operating expenses, report costs incurred during 1989 even though payments may have been made at a later date. **Exclude** interest on loans, as well as sales taxes or other taxes collected from customers and paid directly to a taxing authority.
- Definitions for annual payroll are the same as those used on the Employer's Quarterly Federal Tax Return, Treasury Form 941.
- Report dollar values in whole dollars (omit cents).
- If book figures are not available, carefully prepared estimates are acceptable. Enter "0" in items where applicable.
- Revenues derived from services provided on a contractual basis should be prorated according to the work accomplished. (Only include the amounts applicable to the report period.)

SAMPLE

ITEM 1 ORGANIZATIONAL STATUS

Mark (X) the ONE box which best describes this company during 1989.

0☐ Corporation
1☐ Individual proprietorship
2☐ Partnership
5☐ Governmental -- *Specify* ▽ _____
9☐ Other -- *Specify* ▽ _____

ITEM 2 CLASSIFICATION OF CARRIER *(FOR MOTOR FREIGHT CARRIERS ONLY. ALL OTHERS SKIP TO ITEM 3.)*

Mark (X) the ONE box which best describes the commodities handled that accounted for the greatest percentage of this company's motor carrier freight revenue in 1989.

1☐ General freight
2☐ Special commodities including household goods

ITEM 3 NUMBER OF ESTABLISHMENTS

	Key code	1989 Number
Enter the total number of motor freight transportation and warehousing establishments operated by this company as of December 31, 1989. →	502	

CONTINUE WITH ITEM 4 ON PAGE 2

ITEM 4 OPERATING REVENUES

Line A — Report all revenues from the transportation of property by motor vehicles. Include revenues from furnishing vehicles **with** drivers to other carriers under lease or similar arrangement.

Line B — Report commissions for providing brokerage services, making payroll deductions, or collecting freight charges for other carriers. **Household goods carriers** — Report booking, origin, and packing commissions.

Line C — Report revenues from the short-term rental or extended-term leasing (with or without maintenance) of trucks, truck-tractors, or trailers, **without** drivers.

Line D — Report revenues from the storage of shipments in your warehouses pending further instructions by the shipper; and from the permanent storage of household goods on a paid-on-delivery basis, commercial goods, or records storage. Include rental receipts from the operation of mini-warehouses and self-service storage facilities. **Exclude** revenues from the subleasing of warehousing space to others.

Line E — Report revenues from packing and crating, handling, providing labor to other carriers for loading and unloading, and other accessory services.

Line F — Report amounts received from other carriers for the use of terminal facilities operated by this company. Include amounts billed separately for repair services. **Exclude** revenues from other operating units of this company.

Line G — Report all other operating revenues including sales from the operation of lunchrooms, restaurants, etc.; receipts from the parking and storage of vehicles; receipts from snowplow work; etc. **Exclude** the value of used equipment or vehicles sold; receipts derived from any equity or full payout leasing arrangement ("finance" leasing); and non-operating receipts such as income from investments, the sale of securities, real estate, etc. **NOTE — If the amount reported on this line is greater than 50 percent of the total operating revenues reported in line H, indicate the source of these revenues in the remarks section on the back of this form.**

Line H — Report the sum of lines A through G.

	Key code	1989 Bil.	Mil.	Thou.	Dol.
A. Motor carrier freight revenues	505				
B. Commissions	601				
C. Lease and rental revenues from trucks and other motor vehicles, without drivers	508				
D. Warehousing and storage revenues	509				
E. Warehouse handling revenues	602				
F. Revenues from the operation of terminal facilities	603				
G. All other operating revenues	610				
H. **TOTAL OPERATING REVENUES** →	511				

ITEM 5 ANALYSIS OF OPERATING REVENUES

Line A — Report in line A(1), the percentage of total motor carrier freight revenues (reported in line 4A) from trucking or transfer services provided within a city, town, or other local area including adjoining municipalities or suburban areas. Report in line A(2), the percentage of motor carrier freight revenues from "over-the-road" trucking services either as a common carrier or under special or individual contract or agreement. (Note — The sum of lines A(1) and A(2) should equal 100 percent.)

Line B — Report in line B(1), the percentage of this company's total motor carrier freight revenues (reported in line 4A) from handling shipments with an actual weight of up to 10,000 pounds (less-than-truckload). Report in line B(2), the percentage of total motor carrier freight revenues from handling shipments with an actual weight of 10,000 pounds or more (truckload). (Note — The sum of lines B(1) and B(2) should equal 100 percent.)

Line C — Report the percentage of total motor carrier freight revenues (reported in line 4A) derived from hauling each of the following commodities. (Note — The sum of lines C(1) through C(10) should equal 100 percent.)

(1) Agricultural and food products — Includes live animals (cattle, horses, poultry, hogs, etc.), seafood, fresh farm products (grain, flowers, nursing stocks, raw milk, etc.), and processed foods and tobacco products (canned goods, prepared meats, frozen foods, beverages, cigarettes, etc.).

(2) Mining products, unrefined — Includes crude oil, coal, and metal ores.

(3) Building materials — Includes gravel, sand, concrete, flat glass, etc. **Excludes** cut lumber.

(4) Forestry, wood, and paper products — Includes logs and forest products, lumber and fabricated wood products (except furniture), paper, and paper products.

(5) Chemicals and allied products (except petroleum) — Includes chemicals and drugs (fertilizers, pesticides, cosmetics, paints, etc.), plastics, and rubber products.

(6) Petroleum and petroleum products — Includes paving and roofing materials.

(7) Metals and metal products — Includes primary metal products (pipes, ingots, billets, sheets, etc.), fabricated metal products, machinery, and transportation equipment and parts.

(8) Household goods — Includes household and office furniture from homes, offices, etc.

(9) Other manufactured products — Includes furniture and hardware (not involved in household moving), glass products, textiles and apparels (fibers, leather products, carpets, clothing, etc.) and miscellaneous manufactured products (photographic goods, watches, clocks, jewelry, toys, etc.).

(10) All other — Includes scrap, garbage, trash, septic tank waste, industrial water, mixed cargo (including delivery of small packages), etc. Please specify the primary commodity hauled in this category.

Line D — Report the percentage of this company's warehouse storage and handling revenues (the sum of lines 4D and 4E) attributable to household goods in line D(1), and the percentage attributable to all other goods in line D(2). (Note — The sum of lines D(1) and D(2) should equal 100 percent.)

Estimates are acceptable if book figures are not available.

	Key code	Percent
A. Percentage of motor carrier freight revenues from:		
(1) Local trucking	506	%
(2) Intercity trucking	507	%
B. Percentage of motor carrier freight revenues from:		
(1) Less-than-truckload	605	%
(2) Truckload	606	%
C. Percentage of motor carrier freight revenues from:		
(1) Agricultural and food products	621	%
(2) Mining products, unrefined	622	%
(3) Building materials	623	%
(4) Forestry, wood, and paper products	624	%
(5) Chemicals and allied products (except petroleum)	625	%
(6) Petroleum and petroleum products	626	%
(7) Metals and metal products	627	%
(8) Household goods	628	%
(9) Other manufactured products	629	%
(10) All other — *Specify*	630	%
D. Percentage of warehouse storage and handling revenues from:		
(1) Household goods	631	%
(2) All other goods	632	%

SAMPLE

ITEM 6 PAYROLL AND OPERATING EXPENSES

Line A — Report the gross earnings paid in calendar year 1989 to employees prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance premiums, union dues, savings bonds, etc. Include all wages, salaries, commissions, dismissal pay, paid bonuses, vacation and sick leave pay, and the cash equivalent of compensation paid in kind. If a corporation, include salaries of officers; if an **unincorporated** concern, **exclude** payments to proprietors or partners.

Line B — Report **employer's cost** for legally required and voluntary employee fringe benefit programs. Include employer's Social Security contribution, unemployment compensation, worker's compensation insurance, insurance premiums on hospital and medical plans, life insurance premiums, pension plans, stock purchase plans, etc. Estimates are acceptable if book figures are not available.

Line C — Report the cost of gasoline and other fuels, including all applicable Federal and State gasoline, diesel fuel, and oil taxes in line C(1). Report the cost of purchased fuels consumed for heat, power, or generating electricity in line C(2).

Line D — Report in line D(1), rental payments made to agents for furnishing revenue vehicles (trucks, truck-tractors, or trailers) **with** drivers for the exclusive use and control of this firm. Report payments made to other carriers (except agents) for the rental of revenue vehicles **with** drivers in line D(2) and **without** drivers in line D(3) for this firm's exclusive use and control. Report the cost of all other purchased transportation in line D(4), including payments for the transportation of individual shipments and part loads in the vehicles of another carrier, when the hauling carrier retains control of the vehicle and driver; payments to railroads, water carriers, airlines and others for the transportation of this company's loaded or empty revenue vehicles and containers; and payments for the delivery of small shipments by parcel post or messenger.

Line E — Report payments made to other companies for the rental and leasing of buildings, structures, and offices in line E(1), and for machinery and equipment (other than trucks and other motor vehicles) in line E(2). Include payments for leased assets under either a capital or operating lease. Payments under a capital lease should be reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. **Exclude** payments for use of depreciable assets owned by a parent company or subsidiary.

Line F — Report in line F(1), the net cost (premiums less dividends or refunds) of commercial insurance to protect the company against liability for deaths or injuries of persons (other than employees) and damages to property of others resulting from the operation of owned and leased vehicles. Report in line F(2), the net cost of commercial insurance to protect the company against liability for claims resulting from loss or damage to, or delay of property entrusted to it for transportation or storage, and losses from fire, theft or collision damage to owned or leased vehicles. Deduct from lines F(1) and F(2) premiums received as commissions from other motor carriers as part of a contractual hauling agreement. Report in line F(3), the net cost of commercial insurance to protect the company against loss of or damage to buildings, structures, machinery and equipment (other than motor vehicles) caused by fire, flood, wind, boiler explosion, or any other cause.

Line G — Report in line G(1), the amount paid for tires and tubes, and parts used in repairs to company owned or leased vehicles performed by company personnel. Report amounts paid to others for repair of company owned or leased vehicles (include charges for parts and labor) in line G(2). Report the amount of purchased repairs to buildings, structures, and offices in line G(3), and machinery and equipment (other than motor vehicles) in line G(4). **Exclude** repairs performed on leased buildings or equipment and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained.

Line H — Report the amount of depreciation and amortization charges against depreciable assets owned by your company. Report separately depreciation of trucks and other motor vehicles in line H(1); depreciation for buildings, structures, and offices in line H(2); and depreciation of machinery and equipment (other than motor vehicles) in line H(3). Include depreciation on assets rented or leased to others by you under an operating lease agreement. **Exclude** depreciation on assets leased to others by you under a capital lease agreement. Do not adjust for the value of depreciable assets sold or traded for replacement purposes.

Line I — Report payments to Federal, State, and local governments for vehicle licensing and registration, tolls, and other vehicle use taxes. **Exclude** all gasoline, diesel fuel, and oil taxes, as well as real estate and personal property taxes.

Line J — Report other operating expenses not reported in lines A through I. Include real estate and personal property taxes, the cost of purchased utilities, communication services, advertising, office supplies, losses by damage or theft not covered by insurance, bad debt losses, etc. **Exclude** interest on loans, as well as sales taxes and other taxes collected directly from customers and paid directly to a taxing authority. **NOTE — If the amount reported on this line is greater than 50 percent of the total operating expenses reported in line K, indicate the source of these expenses in the remarks section on the back of this form.**

Line K — Report the sum of lines A through J.

	Key code	1989 Bil.	Mil.	Thou.	Dol.
A. Annual payroll	512				
B. Employer contributions to Social Security and other supplemental labor benefits	513				
C. Cost of purchased fuels					
(1) Trucks and other motor vehicles	514				
(2) Heat, power, and generating electricity	515				
D. Cost of purchased transportation					
(1) Trucks and other motor vehicles rented or leased with drivers from agents	640				
(2) Trucks and other motor vehicles rented or leased with drivers, except from agents	641				
(3) Trucks and other motor vehicles rented or leased without drivers	642				
(4) Transportation purchased from railroads, airlines, water and other motor carriers	643				
E. Lease and rental payments					
(1) Buildings, structures, and offices	644				
(2) Machinery and equipment (other than motor vehicles)	645				
F. Cost of insurance					
(1) Public liability and property damage insurance	646				
(2) Insurance for loss or damage to motor vehicles and their cargos	647				
(3) Insurance for buildings, structures, offices, and machinery and equipment (other than trucks and other motor vehicles)	648				
G. Maintenance and repair costs					
(1) Motor vehicle parts for self-repair, including tires and tubes	649				
(2) Purchased repair services for trucks and other motor vehicles	650				
(3) Purchased repairs for buildings, structures, and offices	651				
(4) Purchased repairs for machinery and equipment (other than motor vehicles)	652				
H. Depreciation					
(1) Trucks and other motor vehicles	518				
(2) Buildings, structures, and offices	653				
(3) Machinery and equipment (Other than motor vehicles)	654				
I. Taxes and licenses	520				
J. Other operating expenses	655				
K. TOTAL OPERATING EXPENSES →	522				

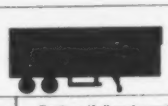
SAMPLE

ITEM 7 **INVENTORIES OF REVENUE GENERATING FREIGHT EQUIPMENT – DECEMBER 31, 1989**

(FOR MOTOR FREIGHT CARRIERS ONLY. ALL OTHERS SKIP TO ITEM 8.)

Report the **number** of vehicles (owned or that were leased **without** drivers from others) used or held for use in motor carrier operations on December 31, 1989. **Exclude** vehicles that you own that were leased **without** drivers to others.

DECEMBER 31, 1989 INVENTORY



	Key code	Trucks (1)	Key code	Truck-tractors (2)	Key code	Trailers (full and semi) (3)
A. Number owned	523		524		525	
B. Number leased	526		527		528	
C. TOTAL →	529		530		531	

ITEM 8 **REPORT PERIOD**

Mark (X) the one box which best describes the period covered by your report. If the data reported in items 4, 5, and 6 are for a period other than the "calendar year," please enter the beginning and ending dates.

1 ☐ Calendar year – *Go to item 9*
2 ☐ Fiscal year
3 ☐ Less than 12 months

	Key code	1989 Month	Day	Year
From	536			
To	537			

ITEM 9 **OWNERSHIP OR CONTROL**

A. Does another company own more than 50 percent of the voting stock or have the power to control the management and policies of this company?

1 ☐ YES →
2 ☐ NO – *Continue with item 9b*

Name of owning or controlling company
Number and street
City, State, and ZIP Code
EI Number →

B. Did this company acquire or merge with another company in 1989?

1 ☐ YES →
2 ☐ NO – *Continue with item 10*

Name of company acquired or merged with
Number and street
City, State, and ZIP Code
Date of merger or acquisition → Month Year
EI Number →

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REMARKS – *Please use this space for any explanations that may assist in understanding your reported data.*

ITEM 10 **CERTIFICATION** – This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report	Address *(Number and street, city, State, ZIP Code)*	Telephone Area code	Number	Extension

Signature of authorized person	Title	Date

B-524

OMB No. 0607-0510: Approval Expires 12/31/92

FORM **B-524** (1-26-90) U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

1989 MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING SURVEY

PENALTY FOR FAILURE TO REPORT
DUE DATE: 30 DAYS AFTER RECEIPT OF FORM

NOTICE — Response to this inquiry **is required by law (title 13, U.S. Code)**. By the same law, your report to the Census Bureau is **confidential**. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are **immune from legal process**.

Please complete this form and RETURN TO: **BUREAU OF THE CENSUS, 1201 East Tenth Street, Jeffersonville, IN 47132**

IF BOOK FIGURES ARE NOT AVAILABLE, CAREFULLY PREPARED ESTIMATES ARE ACCEPTABLE.

Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for assembling data from existing records and completing the form. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Associate Director for Management Services, Paperwork Reduction Project 0607-0510, Room 2027, Bureau of the Census, Washington, DC 20233; and to the Office of Management and Budget, Paperwork Reduction Project 0607-0510, Washington, DC 20503.
PLEASE INCLUDE FORM NAME AND NUMBER IN ALL CORRESPONDENCE.

In correspondence pertaining to this report, please refer to the IDENTIFICATION Number shown below.

100 CENSUS USE 1 ☐ M 2 ☐ T

YOUR FILE COPY

(Please correct any error in name, address, and ZIP Code)

ITEM 1 ORGANIZATIONAL STATUS — *Mark (X) the ONE box which best describes this company during 1989.*

0 ☐ Corporation
1 ☐ Individual proprietorship
2 ☐ Partnership
5 ☐ Governmental — *Specify* ▷
9 ☐ Other — *Specify* ▷

ITEM 2 NUMBER OF ESTABLISHMENTS

Enter the total number of warehousing and motor freight transportation establishments operated by this company as of December 31, 1989. → Key code 502

ITEM 3 OPERATING REVENUES

Please read all instructions carefully before completing this item, including the SURVEY COVERAGE and REPORTING INSTRUCTIONS on page 3 of this report.

Line A — Report warehousing and storage revenues only. Include rental receipts from the operation of mini-warehouses and self-service storage facilities. **Exclude** revenues from the subleasing of warehousing space to others.

Line B — Report all amounts billed separately for labor, packing and crating, handling, accessory services, etc.

Line C — Report total sales of merchandise owned by this company.

Line D — Report all commission or brokerage fees received from the sale of merchandise owned by others.

Line E — Report all revenues from the transportation of property by motor vehicles. Include revenues from furnishing vehicles **with** drivers to other carriers under lease or similar arrangement.

Line F — Report all other operating revenues, including receipts from services such as compressing, bailing, etc., and the rental and leasing of vehicles **without** drivers. **Exclude** the value of used equipment or vehicles sold, and non-operating receipts such as income from investments, the sale of securities, real estate, etc. **NOTE — If the amount reported on this line is greater than 50 percent of the total operating revenues reported in line G, indicate the source of these revenues in the remarks section on page 3.**

Line G — Report the sum of lines A through F.

	Key code	1989 Mil.	Thou.	Dol.
A. Warehousing and storage revenues	509			
B. Warehouse handling revenues	802			
C. Sales of merchandise owned by this firm	607			
D. Commissions and fees	608			
E. Motor carrier freight revenues	505			
F. All other operating revenues	610			
G. TOTAL OPERATING REVENUES →	511			

ITEM 4 PERCENTAGE OF WAREHOUSE STORAGE AND HANDLING REVENUES BY TYPE OF GOODS

Report the percentage of this company's warehouse storage and handling revenues (the sum of lines 3A and 3B) attributable to household goods in line A, and the percentage attributable to all other goods in line B. (Note — The sum of lines A and B should equal 100 percent.)

Estimates are acceptable if book figures are not available.	Key code	Percent
A. Household goods	631	%
B. All other goods	632	%

CONTINUE WITH ITEM 5 ON PAGE 2

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ITEM 5 PAYROLL AND OPERATING EXPENSES

Please read all instructions carefully before completing this item, including the SURVEY COVERAGE and REPORTING INSTRUCTIONS on page 3 of this report.

Line A — Report the gross earnings paid in 1989 to employees prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance premiums, union dues, savings bonds, etc. Include all wages, salaries, commissions, dismissal pay, paid bonuses, vacation and sick leave pay, and the cash equivalent of compensation paid in kind. If a corporation, include salaries of officers; if an **unincorporated** concern, **exclude** payments to proprietors or partners.

Line B — Report employer's cost for legally required and voluntary employee fringe benefit programs. Include employer's Social Security contributions, unemployment compensation, worker's compensation insurance, insurance premiums on hospital and medical plans, life insurance premiums, pension plans, stock purchase plans, etc. Estimates are acceptable if book figures are not available.

Line C — Report the cost of gasoline and other fuels, including all applicable Federal and State gasoline, diesel fuel, and oil taxes. Also include the cost of purchased fuels consumed for heat, power, or generating electricity.

Line D — Report payments made to other companies for the rental and leasing of buildings, structures, and offices in line D(1), and for machinery and equipment in line D(2). Include payments for leased assets under either a capital or operating lease. Payments made under a capital lease should be reported as the actual amount paid to the lessor, not the value estimated for depreciation of the capital lease. **Exclude** payments for use of depreciable assets owned by a parent company or subsidiary.

Line E — Report the amount of purchased repairs to buildings, structures, and offices in line E(1), and to machinery and equipment in line E(2). **Exclude** repairs performed on leased buildings or equipment and paid for under the lease agreement, and improvements for which depreciation accounts are ordinarily maintained.

Line F — Report the amount of depreciation and amortization charges against depreciable assets owned by your company. Report separately the amount of depreciation for buildings, structures, and offices in line F(1), and for machinery and equipment in line F(2). Include depreciation on assets rented or leased to others by you under an operating lease agreement. **Exclude** depreciation on assets leased to others by you under a capital lease agreement. Do not adjust for the value of depreciable assets sold or traded for replacement purposes.

Line G — Report other operating expenses not reported in lines A through F. Include real estate and personal property taxes, vehicle licensing and registration, the cost of purchased utilities and communication services, advertising, office supplies, losses by damage, theft or destruction not covered by insurance, bad debt losses, etc. Exclude interest on loans, as well as sales taxes and other taxes collected directly from customers and paid directly to a taxing authority. **NOTE — If the amount reported on this line is greater than 50 percent of the total operating expenses reported in line H, indicate the source of these expenses in the remarks section on page 3.**

Line H — Report the total of lines A through G.

	Key code	1989 Mil.	Thou.	Dol.
A. Annual payroll	512			
B. Employer contributions to Social Security and other supplemental labor benefits	513			
C. Cost of purchased fuels	639			
D. Lease and rental payments				
(1) Buildings, structures, and offices	644			
(2) Machinery and equipment	645			
E. Cost of purchased repairs				
(1) Buildings, structures, and offices	651			
(2) Machinery and equipment	652			
F. Depreciation				
(1) Buildings, structures, and offices	653			
(2) Machinery and equipment	654			
G. All other operating expenses	655			
H. TOTAL OPERATING EXPENSES →	522			

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ITEM 6 REPORT PERIOD

Mark (X) the one box which best describes the period covered by your report. If the date reported in items 3, 4, and 5 are for a period other than the "calendar year," please enter the beginning and ending dates.

1 ☐ Calendar year — *Go to item 7*
2 ☐ Fiscal year
3 ☐ Less than 12 months → From / To

	Key code	1989 Month	Day	Year
From	538			
To	537			

ITEM 7 OWNERSHIP OR CONTROL

A. Does another company own more than 50 percent of the voting stock or have the power to control the management and policies of this company?

1 ☐ YES →
2 ☐ NO — *Continue with item 7b*

Name of owning or controlling company
Number and street
City, State, and ZIP Code
EI Number →

B. Did this company acquire or merge with another company in 1989?

1 ☐ YES →
2 ☐ NO — *Continue with item 8*

Name of company acquired or merged with
Number and street
City, State, and ZIP Code
Date of merger or acquisition → Month Year
EI Number →

CONTINUE ON PAGE 3

FORM B-524 (1-26-90)

SURVEY COVERAGE

This report covers all domestic establishments operated by your company primarily engaged in providing warehousing services and commercial motor freight transportation, as listed below. **Exclude** subsidiaries or operating units which have been requested to submit separate Motor Freight Transportation and Warehousing Survey Report forms to the Bureau of the Census.

Public Warehousing – Establishments primarily engaged in the storage of farm products, perishable goods under refrigeration; household goods; a general line of goods; or special goods such as automobile dead storage, furs for the trade, textiles, whiskey, or goods at foreign trade zones. Mini-warehouses and self-service storage facilities are also included.

Trucking, Local and Long Distance – Establishments primarily engaged in furnishing trucking or transfer services with or without storage within a city, town, or other local area including adjoining municipalities or suburban areas; or in furnishing "over-the-road" trucking services either as common carriers or under special or individual contracts or agreements.

If your activities do not appear to be covered by this survey, please describe your kind of business in the "Remarks" section.

REPORTING INSTRUCTIONS

Please read all instructions and complete all items in this report. This will save on costly and time-consuming correspondence.

- Report only for those establishments (physical locations) primarily engaged in the activities defined in the coverage section.
- For establishments sold or acquired during 1989, report only for the period that the locations were operated by this company.
- Report data for the calendar year 1989. If calendar year records are not available, data for the latest fiscal year will be accepted. Indicate the period covered in item 6. Please note, however, that estimates for the calendar year are preferable to book figures covering a different time period.
- For operating revenues, report all charges or billings for services rendered and any sales of merchandise, during 1989, even though payments may have been received at a later date. **Exclude** sales taxes or other taxes collected from customers and paid directly to a taxing authority. **Exclude** nonoperating revenues such as income from investments, loans, and the sale of securities or real estate. Also **exclude** revenues from a parent organization, franchise locations owned by others, and any franchise or license fees.
- For operating expenses, report costs incurred during 1989 even though payments may have been made at a later date. **Exclude** interest on loans, as well as sales taxes or other taxes collected from customers and paid directly to a taxing authority.
- Definitions for total annual payroll are the same as those used on the Employer's Quarterly Federal Tax Return, Treasury Form 941.
- Report dollar values in whole dollars (omit cents).
- If book figures are not available, carefully prepared estimates are acceptable. Enter "0" in items where applicable.
- Revenues derived from services provided on a contractual basis should be prorated according to the work accomplished. (Only include the amounts applicable to the report period.)

REMARKS – *Please use this space for any explanations that may assist in understanding your reported data.*

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ITEM 8 **CERTIFICATION** – This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report	Address *(Number and street, city, State, ZIP Code)*	Telephone		
		Area code	Number	Extension

Signature of authorized person	Title	Date

FORM B-534 (1-28-90)

U.S. Department of Commerce
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